

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION**

MMODAL SERVICES LTD.,

Plaintiff,

vs.

NUANCE COMMUNICATIONS, INC.,

Defendant.

Civil Action No.

**JURY TRIAL DEMANDED**

**PLAINTIFF MMODAL SERVICES LTD.’S  
COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff MModal Services Ltd. (“MModal”), by and through its undersigned counsel, file this Complaint (“Complaint”) against Defendant Nuance Communications, Inc. (“Nuance” or “Defendant”) for infringement of U.S. Patent Nos. 9,208,786 (the “’786 Patent”), 8,781,829 (the “’829 Patent”), 8,412,524 (the “’524 Patent”), and 7,716,040 (the “’040 Patent”) (collectively, the “Asserted Patents”) in accordance with 35 U.S.C. § 271 and alleges as follows.

**PARTIES**

1. MModal is a limited company organized under the laws of the state of New Jersey. MModal also maintains a substantial 100-plus employee research and

development office that performs medical transcription services at 5430 Metric Place, Norcross, Georgia.

2. Nuance is a Delaware corporation having its headquarters at 1 Wayside Road, Burlington, Massachusetts 01803.

3. Upon information and belief, Nuance has an office location and uses real property at One Glenlake Parkway, Suite 800, Atlanta, Georgia 30328 where Nuance sales executives are located. (See <https://www.nuance.com/about-us/office-locations.html>). For example, as of at least February of 2018, Nuance was recruiting for a Strategic Account Executive for this location “responsible for developing and executing sales strategies.” (See <https://jobs.nuance.com/job/atlanta/strategic-account-executive/843/6536044>). Upon information and belief, this office location houses at least part of Nuance Transcription Services, Inc., a subsidiary of Nuance that has, as of at least February of 2018, over 3,200 employees. Upon information and belief, this location performs human-based transcription services, including those in the medical field. (See Dun & Bradstreet One-Stop Report: Nuance Transcription Services, Inc., available at <https://learning.dnb.com/courses/db-hoovers-onestop-reports>. A copy of the One-Stop Report is attached hereto as Exhibit A).

4. Upon information and belief, Nuance also transacts business in the state of Georgia, having business contacts with at least the Northeast Georgia Medical Center located in Gainesville, Georgia. (See <https://www.nuance.com/about-us/newsroom/press-releases/Hospitals-Choose-Nuance-Computer-Assisted-Physician-Documentation.html>). Nuance had previously registered to do business in the state of Georgia and had an agent for service of process in Georgia.

### **JURISDICTION**

5. This action arises under the patent laws of the United States, 35 U.S.C. §§ 100 *et seq.*, which are within the subject matter jurisdiction of this Court under 28 U.S.C. §§ 1331 and 1338(a).

6. Nuance is subject to general and specific personal jurisdiction in this judicial district based upon its purposeful, systematic, and continuous contacts with the state of Georgia, including due to its sale and offer for sale of the infringing speech recognition solutions to customers within the state, its decision to maintain an office, and its previous registration to do business in the state.

7. Venue is proper in this Court under 28 U.S.C. § 1400(b) because Nuance has committed acts of infringement in this district and has a regular and established place of business in this district.

**MMODAL’S INTELLECTUAL PROPERTY AND  
THE NUANCE ACCUSED PRODUCTS**

8. MModal provides cloud-based clinical documentation solutions for the healthcare industry, including top-ranking medical speech recognition solutions that help clinicians efficiently capture complete and accurate patient narratives, improve care quality, ensure compliance with healthcare regulations, and increase revenue.

9. One exemplary MModal clinical documentation solution is Fluency Direct, a speech recognition solution that allows physicians to create, edit, and sign electronic health records using dictation. Fluency Direct allows clinicians to dictate into their electronic health records from anywhere—i.e., from any device and in any care setting—allowing clinicians greater flexibility and portability in completing those records, and thus freeing up more time for patient care.

10. In 2017 and 2018, MModal’s Fluency Direct received the “Best in KLAS” award in the Speech Recognition, Front-End Electronic Medical Records segment from KLAS Research, a healthcare IT data and insights company. This honor was awarded to MModal based on MModal client feedback collected via confidential interviews and product evaluations over a one-year period.

11. In addition to Fluency Direct, MModal offers a number of other solutions that combine MModal’s speech recognition technology and other tools, like MModal’s Computer-Assisted Physician Documentation (“CAPD”), for

physician document-creation and diagnostic interpretation, including: Clinical Documentation Improvement (“CDI”) Engage, Fluency Flex, Fluency for Imaging, Fluency Mobile, and Fluency for Transcription.

12. MModal has spent significant money, time and effort developing the proprietary technologies that support its speech recognition and CAPD solutions, including investments in securing patents in those technologies and other inventions in the speech recognition and CAPD field. Indeed, the Asserted Patents are just four of the over fifty patents that MModal has obtained on its proprietary inventions and that MModal or MModal related entities own by assignment covering various technologies in the speech recognition solution field.

13. Nuance describes itself as a “leading provider of voice recognition and natural language understanding solutions” in the healthcare, mobile, enterprise and imaging market segments. (See Nuance 2016 10-K at 18, *available at* <http://investors.nuance.com/static-files/32f2acfd-08cd-4759-94cd-a57939433878>).

14. The solutions that Nuance claims to provide to the healthcare market segment include solutions for “Documentation Capture,” “Clinical & Revenue Integrity,” and “Diagnostic.” (See [https://www.nuance.com/healthcare.html#standardpage-mainpar\\_multicolumn](https://www.nuance.com/healthcare.html#standardpage-mainpar_multicolumn)).

15. One “documentation capture” solution that Nuance offers to the healthcare segment is the Dragon Medical suite of products. Nuance’s Dragon Medical products claim to be speech recognition solutions that “capture [] doctor’s narrative” and “feature fast, accurate, and responsive clinical speech recognition.” (<https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical.html>). Nuance’s Dragon Medical solutions include its cloud-based Dragon Medical and Dragon Medical One solutions, as well as the Dragon Medical Network Edition (for acute care and ambulatory organizations), Choice for Dragon Medical (a combination cloud and hosted option), Dragon Medical Practice Edition (a solution for clinics and practices with 24 or less providers), and Dragon for Mac (i.e., Macintosh) Medical options. (*Id.*).

16. Nuance’s “PowerMics” are wireless (PowerMic Mobile) and wired (PowerMic) microphones offered for use with Nuance’s Dragon Medical solutions. (See <https://www.nuance.com/healthcare/medical-transcription/powermic.html>). PowerMic Mobile is an iPhone and Android application that is optimized for use with Dragon Medical One and other Nuance healthcare solutions. ([https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf)). It “captures the [user’s] audio and inputs it

directly into the desktop Nuance speech recognition solution, functioning just like the [wired] PowerMic, including user programmable buttons.” (*Id.*).

17. Nuance’s Dragon Medical solutions are designed to work with major electronic health record platforms and with Nuance’s CAPD solutions. Nuance’s CAPD solutions claim to use artificial intelligence to, among other things, present real-time advice to the dictating physician about specificity of the diagnosis that is being entered (so that the encounter can be properly coded for reimbursement) and identify undocumented diagnoses. (*See*

[https://www.nuance.com/healthcare/clintegrity/documentation-improvement/computer-assisted-physician-documentation.html#collapsestandardpage-mainpar\\_progressiveaccordion\\_21279888532](https://www.nuance.com/healthcare/clintegrity/documentation-improvement/computer-assisted-physician-documentation.html#collapsestandardpage-mainpar_progressiveaccordion_21279888532)).

18. One CAPD solution that Nuance offers is Dragon Medical Advisor. As explained by Nuance, “Dragon Medical Advisor works in seamless coordination with the Dragon Medical One speech recognition workflow, to analyze physicians’ notes in real time. An intelligent workflow companion, Dragon Medical Advisor identifies areas where additional specificity is needed and unobtrusively notifies and prompts the physician.” (<https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html>).

19. In addition, Nuance offers solutions for the mobile market segment, such as Dragon Anywhere and Dragon Anywhere Group. As explained by Nuance, “Dragon Anywhere lets you dictate and edit documents by voice on your iOS or Android mobile device quickly and accurately, so you can stay productive anywhere you go. (<https://www.nuance.com/dragon/dragon-anywhere.html>). Nuance also offers Dragon Anywhere Group for enterprise productivity: “With Dragon Anywhere Group as part of your mobile documentation workflow, mobile professionals can take detailed notes, complete reports of any length, or even fill out forms—all by voice—directly on their mobile device in real time.” (<https://www.nuance.com/dragon/dragon-anywhere/dragon-anywhere-group.html>).

20. Nuance also offers Dragon speech recognition solutions that can be used in specific industries other than healthcare or mobile (like Dragon Law Enforcement) or that are industry-agnostic, like Dragon Naturally Speaking (a variety of voice to text document-creation solutions).

21. The speech recognition and CAPD solutions that Nuance imports, uses, offers to sell, sells, markets, and/or distributes violate MModal’s intellectual property rights, as further set out in this Complaint.



22. Nuance has voluntarily and purposely placed these and other products and services into the stream of commerce with the expectation that they would be offered for sale and sold in Georgia and in this District.

23. Upon information and belief, Nuance has been aware of MModal and of its proprietary technologies and intellectual property assets since at least 1998.

24. Nuance's awareness of MModal's valuable, proprietary technologies and intellectual property assets is demonstrated by the fact that Nuance has made three proposals to acquire MModal and its predecessor companies since 1998.

25. Notwithstanding that fact, Nuance has and continues to infringe MModal's patent rights.

**COUNT ONE – INFRINGEMENT OF THE '786 PATENT**

26. On December 8, 2015, the United States Patent and Trademark Office ("USPTO") duly and legally issued the '786 Patent, entitled "Speech Recognition Using Loosely Coupled Components," to inventors Detlef Koll and Michael Finke after a full and fair examination. MModal is the owner by assignment of the entire right, title and interest in and to the '786 Patent, including the sole and undivided right to sue for all past, present and future infringement. A copy of the '786 Patent is attached hereto as Exhibit B.

27. The '786 Patent is generally directed to a system for remote speech recognition including an audio capture component located in a first device and a speech recognition component located in a second, remote device. The system also includes first and second result processing components which are assigned to a user and provide textual or other (e.g., command) output based on the speech processing results of the speech processing component.

28. By way of example only, claim 1 of the '786 Patent recites:

A system comprising:

an audio capture component, the audio capture component comprising means for capturing a first audio signal representing first speech of a user to produce a first captured audio signal;

a speech recognition processing component comprising means for performing automatic speech recognition on the first captured audio signal to produce first speech recognition results;

a first result processing component, the first result processing component comprising first means for processing the first speech recognition results to produce first result output;

a second result processing component, the second result processing component comprising second means for processing the first speech recognition results to produce second result output;

a context sharing component comprising means for identifying a first one of the first and second result processing components as being associated with a first context of the user at a first time, the context sharing component further comprising:

means for identifying a list of at least one result processing component authorized for use on behalf of the user at the first time; and

means for determining that the at least one result processing component in the list is associated with the context of the user at the first time; and

speech recognition result provision means for providing the first speech recognition results to the identified first one of the first and second result processing components.

29. The claimed invention of the '786 Patent provided an unconventional solution to address problems with existing computer speech recognition technology, by, for example, providing automatic speech recognition capabilities using multiple devices that can be remotely located from each other and from users.

30. A variety of automatic speech recognition (ASR) systems existed in the prior art in the field of the '786 Patent for recognizing speech to perform functions such as creating transcripts of the speech and controlling the operation of a computer. In one common configuration for such systems, a microphone was connected directly to a desktop computer or other computing device which executes automatic speech recognition software for recognizing the user's speech and acting on the results of that recognition. In another common configuration of such systems, the user made a telephone call and spoke into a telephone, and an automatic speech recognition system remote from the user recognized the user's speech and acted on the results of that recognition.

31. However, a much wider variety of computing devices had become available having varying features and costs. For example, in addition to desktop and laptop computers (which typically must be connected to an external microphone, purchased separately, to capture speech), vendors provided a wide variety of personal digital assistants (PDAs), smartphones, and tablet computers, all of which were capable of connecting to the Internet and other networks (often wirelessly), all of which were capable of executing custom applications to some extent, and some of which contain built-in microphones. Thus, there was a need for improved techniques for making use of a variety of computing technologies to provide automatic speech recognition capabilities for these devices that provide the right combination of recognition quality, recognition speed, and cost of ownership.

32. The claimed system of the '786 Patent had a variety of advantages over the prior art systems. For example, in the claimed system of the '786 Patent the audio capture component on the desktop computer was a software application installed on the desktop computer for capturing the audio signal from the microphone. This was beneficial compared to the systems of the prior art in which the audio capture component was on the terminal server. Because the original audio signal must first be transmitted over a network connection from the desktop computer to the terminal server before being captured by the audio capture

component, the resulting captured audio signal was suboptimal if, for example, the original audio signal experienced loss or other degradation in transmission from the desktop computer to the terminal server. Such degradation was common in conventional systems because the audio signal was compressed in a way that is optimized for playback to a human. The resulting compressed audio signal is of lower quality than was needed for optimal speech recognition. In contrast, in the claimed invention of the '786 Patent, the captured audio signal produced by the audio capture component was optimized for the purpose of speech recognition, thereby improving the quality of the speech recognition results.

33. In another example of the claimed invention of the '786 Patent, the audio capture component was located on a different physical and/or logical device from the result processing component. Furthermore, the computer containing the terminal services client was a distinct physical and/or logical device from that which contained the audio capture component. The benefit of this system was that it enabled speech recognition to be performed using a computing device, such as the desktop computer even when there was no microphone connected locally to that computing device. Additionally, in this system, the user could take full advantage of the significant processing power of the speech recognition server, while taking full advantage of the input and output capabilities of the computer. Thus, the

claimed invention of the '786 Patent represented a substantial improvement in computer speech recognition technology by allowing computing resources to be more efficiently utilized than prior art speech recognition systems.

34. Nuance's Dragon Medical One, including at least Nuance's use and/or its customers' use (*see, e.g.,* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/nc\\_040699.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/nc_040699.pdf) ("More than 500,000 clinicians and 10,000 healthcare facilities worldwide leverage Nuance's . . . clinical documentation solutions . . . ."); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf) ("72% of U.S. hospitals use Nuance.")) of Nuance's Dragon Medical One with Nuance's PowerMic II, PowerMic III, PowerMic Mobile, Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect and/or CAPD Solutions, directly infringes one or more claims of the '786 Patent, literally or under the doctrine of equivalents, including at least claim 1.

35. To the extent that the preamble of claim 1 of the '786 Patent is a limitation, Dragon Medical One is a software application and that application, alone and/or with Nuance's PowerMic II, PowerMic III, PowerMic Mobile, along with Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and/or CAPD Solutions, constitutes a "system." (*See, e.g.,*

<https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-one.html> (“Once installed, clinicians simply open *the client app*, place the cursor where they want speech-recognized text to appear, and start dictating directly into the EHR.”) (emphasis added); <http://engage.nuance.com/dragon-medical-one> (“Deploy through your Virtual Desktop Infrastructure (VDI), as a virtual app, or install on any local workstation or laptop in just minutes without the need for complex configurations—and automatic updates mean less work for your IT staff and less hassle for your clinicians.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf) (“Get even more from your Dragon Medical One investment with workflow enhancements through the cloud, including Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, PowerMic™ Mobile, and more than 100 web-based and mobile EHR apps voice-powered by Dragon Medical.”)).

36. The Dragon Medical One application may be run on a computer which includes “audio capture components” such as microphones, or it may be used with Nuance’s PowerMic II, PowerMic III, and PowerMic Mobile, which also include “audio capture components.” (*See, e.g.:*



(<https://www.youtube.com/watch?v=GJGVJ2O2diM>);

([https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf) (“The smartphone’s microphone captures the

audio and inputs it directly into the desktop Nuance speech recognition solution...”)).

(See also <https://www.nuance.com/healthcare/medical-transcription/powermic.html>

(“Now clinicians can use PowerMic Mobile on their own smartphone, PowerMic at their workstation, or other supported handheld or headset microphones with Dragon Medical solutions to dictate the patient story directly into the EHR...PowerMic Mobile and PowerMic are complementary solutions that allow IT to deliver the ease and accuracy of Dragon Medical speech recognition to every clinician, across physical and virtual environments. They work seamlessly with Nuance Healthcare solutions including Dragon Medical One.”)).



37. Dragon Medical One is a cloud-based speech platform that includes a speech recognition processing component having means for performing automatic speech recognition that produces first speech recognition results, e.g., text of dictated speech. (See

[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf) (“The best speech recognition in the world—in the cloud—**Always available:** Dragon Medical One is designed for speed, accuracy, and flexibility with personalized vocabularies and templates that can be accessed and shared across the widest range of devices in the industry. – **Budget-friendly:** Affordable subscription-based pricing with little up-front capital investment. – **Easy to install and maintain:** No complex configurations, installation options that work with the infrastructure you already have, and automatic updates mean less work for your IT staff and less hassle for your clinicians. – **No speech profile training:** Dragon Medical One requires no voice profile training and includes accent detection and automatic microphone calibration. Dragon Medical One creates profiles that continue to adapt and improve over time to ensure an optimal clinician experience from the start.”)) (emphasis in original).

38. Nuance’s Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, can be used with a first result processing

component, e.g., a processing device running an electronic health record (“EHR”), alone or embedded with Nuance’s CAPD solutions, or other app or software, such as Dragon Medical Advisor, Dragon Medical PowerPack™, and/or Dragon Medical Connect, that receives the output of the automatic speech recognition, which is configured to process the first speech recognition result into a first result output (i.e., input the recognized voice data into a report). (See, e.g., [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf) (“Portability to work at any workstation with the Dragon Medical One Desktop Application. ***Compatible with all leading EHRs***, and designed with virtualization in mind, the Dragon Medical One desktop app provides secure, accurate, and portable cloud-based clinical speech recognition across a wide range of Windows® devices.”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf) (“The smartphone’s microphone captures the audio and inputs it directly into the desktop Nuance speech recognition solution, functioning just like the PowerMic, including user programmable buttons.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf) (“Get even more from your Dragon Medical One investment with workflow enhancements through the cloud, including Dragon

Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, PowerMic™ Mobile, and more than 100 web-based and mobile EHR apps voice-powered by Dragon Medical.”)).

39. Nuance’s Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, is configured to work with multiple EHRs, alone or embedded with Nuance’s CAPD solutions, and applications deployed on either a desktop, smartphone, or in the cloud (i.e., a second result processing component), such as Dragon Medical Advisor, Dragon Medical PowerPack™, and/or Dragon Medical Connect, and thus can be used with a second result processing component, the second result processing component comprising second means for processing the first speech recognition results to produce second result output. (See, e.g.,

[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf) (“Access your voice profile *beyond the EHR*. Through their unique Nuance Healthcare ID, clinicians can reap the benefits of speech-enabled workflows *in a growing catalog of mobile productivity apps*—including secure communication, care coordination, clinical reference, and medical education tools.”) (emphasis added and omitted);

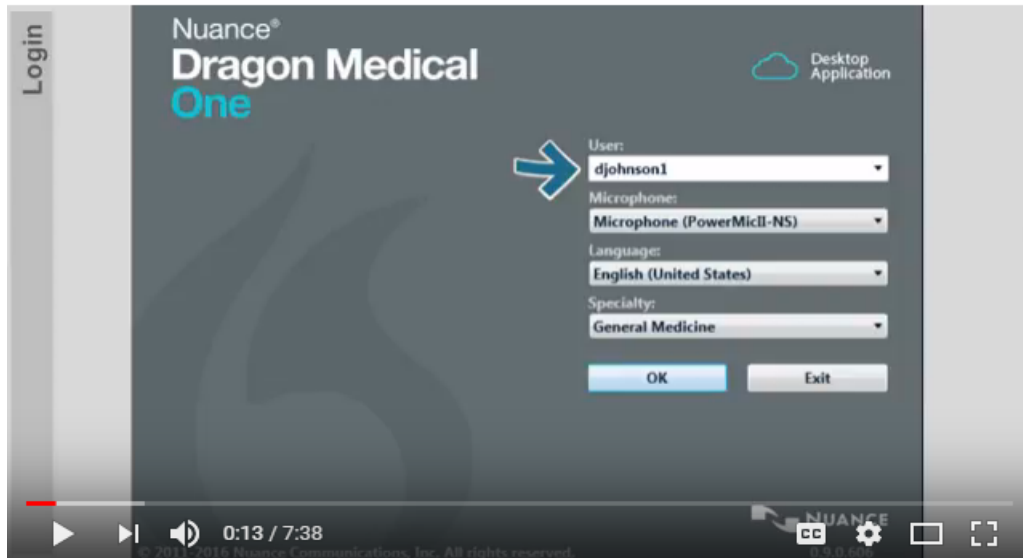
[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf)

[sheet/ds-dragon-medical-one-en-us.pdf](#) (“Compatibility with Nuance and partner workflow enhancements. Get even more from your Dragon Medical One investment *with workflow enhancements through the cloud, including Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, PowerMic™ Mobile, and more than 100 web-based and mobile EHR apps* voice-powered by Dragon Medical.”) (emphasis added and omitted); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf) (“The smartphone’s microphone captures the audio and inputs it directly into the desktop Nuance speech recognition solution, functioning just like the PowerMic, including user programmable buttons.”)).

40. Nuance’s Dragon Medical One also includes a “context sharing component” for identifying one of the first and second result processing components as being associated with a first context of the user at a first time. For example, a user gains access to Dragon Medical One using a unique Nuance Healthcare ID, which enables Dragon Medical One to keep track of the user, the device through which the user is gaining access to the system, and session information:

“The Dragon Medical One cloud platform provides each physician with a *unique Nuance Healthcare ID, providing access to an ecosystem of speech-enabled workflows and personalized tools* designed for speed, accuracy and flexibility across the widest range of devices in the industry.”

(<https://www.nuance.com/about-us/newsroom/press-releases/nuance-unveils-dragon-medical-one.html>) (emphasis added).



(<https://www.youtube.com/watch?v=-vCF6sWudME> at 0:13).

41. Nuance’s PowerMic Mobile also includes a “context sharing component” for identifying one of the first and second result processing components as being associated with a first context of the user at a first time. For example, PowerMic Mobile “offers several intuitive mechanisms for pairing mobile devices with target applications, including Windows Login ID, Nuance Application Username, or token-based pairing.”

([https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-powermic-mobile-en-us.pdf)).

42. Nuance’s Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, also includes means for identifying a list of at

least one result processing component authorized for use on behalf of the user at the first time. For example, the Dragon Medical One platform includes an analytics platform that enables administrators to track the time spent documenting patient-interactions as well as clinician use and productivity. (See <https://www.nuance.com/about-us/newsroom/press-releases/nuance-unveils-dragon-medical-one.html> (“**Insights** – Dragon® Medical Analytics *measures the time spent documenting and provides individual and organizational insights so leaders can track clinician use, efficiency, productivity* and for informed decision making and maximum adoption.”) (emphasis added)).

43. Upon information and belief, in order to track user activity and analytics, Dragon Medical One includes a list of EHRs, applications, and other result processing components associated with the Nuance Healthcare ID:

### Nuance Healthcare ID

The Nuance Healthcare ID is a unique identifier that enables clinicians to personalize their Dragon Medical One experience and access their personal speech profile and speech-enabled products in a selection of mobile apps.

(See Nuance Dragon Medical One Installation and Administration Guide at 37, available at [https://isupportcontent.nuance.com/healthcare/documents/sales/opmanual/DM360-Direct/DMO\\_3.3\\_InstallAdminGuide\\_EN.pdf](https://isupportcontent.nuance.com/healthcare/documents/sales/opmanual/DM360-Direct/DMO_3.3_InstallAdminGuide_EN.pdf)).

- During registration, the user specifies their Nuance Healthcare ID user name (a personal email address) and password; these are needed to activate it.
- After registration, the user activates the Nuance Healthcare ID separately for each app to speech-enable that app.
- The *My Nuance Healthcare ID* website lists all available mobile apps where users can activate their Dragon Medical speech recognition profile and access speech-enabled products.
- There is no additional cost for Dragon Medical in the mobile apps listed on the *My Nuance Healthcare ID* website but you must have an app installed on your mobile device, and have a license/rights to access it, before you activate your Nuance Healthcare ID.

(*Id.*)

## Dragon Medical Connect

Dragon Medical Connect is a powerful feature that allows all speech-enabled, cloud-based applications - (Nuance-branded and third-party partner applications) - to share a single cloud-based user profile. The single-profile architecture means that any changes a user makes to custom words, auto-texts or commands are immediately available, to that user, in any application, on any device - anytime and anywhere. From a user's perspective, this feature provides a consistently superior experience when using Dragon Medical One Desktop Application, Dragon Medical Network Edition or any one of the speech-enabled, third-party applications that leverage Nuance's cloud-based platform.

Dragon Medical Connect is built into all Nuance and partner cloud-enabled products and does not require additional licensing or configuration. However, given the breadth and depth of the Nuance partner ecosystem, it is important to understand how this feature works in the context of the applications you use.

(*Id.* at 39).

## Logging

Dragon Medical One creates log files that can help Nuance to analyze issues reported by end users or administrators. Log files are uploaded to Dragon Medical Server, and a limited amount of information is written to the local file system of the client PC. The information written to the local file system does not contain any sensitive data; the amount of data kept on the local PC can be configured and usually spans data for the last few days.

(*Id.* at 25).

44. Nuance's Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, includes means for determining that at least one result processing component in the list is associated with the context of the user



at the first time. For example, the Dragon Medical One platform enables users to use any number of applications, including Dragon Medical Advisor, Dragon Medical PowerPack™, and/or Dragon Medical Connect, and/or EHRs, alone or embedded with Nuance's CAPD solutions, associated with the user's Nuance Healthcare ID:

- During registration, the user specifies their Nuance Healthcare ID user name (a personal email address) and password; these are needed to activate it.
- After registration, the user activates the Nuance Healthcare ID separately for each app to speech-enable that app.
- The *My Nuance Healthcare ID* website lists all available mobile apps where users can activate their Dragon Medical speech recognition profile and access speech-enabled products.
- There is no additional cost for Dragon Medical in the mobile apps listed on the *My Nuance Healthcare ID* website but you must have an app installed on your mobile device, and have a license/rights to access it, before you activate your Nuance Healthcare ID.

(Nuance Dragon Medical One Installation and Administration Guide at 37).

## Dragon Medical Connect

Dragon Medical Connect is a powerful feature that allows all speech-enabled, cloud-based applications - (Nuance-branded and third-party partner applications) - to share a single cloud-based user profile. The single-profile architecture means that any changes a user makes to custom words, auto-texts or commands are immediately available, to that user, in any application, on any device - anytime and anywhere. From a user's perspective, this feature provides a consistently superior experience when using Dragon Medical One Desktop Application, Dragon Medical Network Edition or any one of the speech-enabled, third-party applications that leverage Nuance's cloud-based platform.

Dragon Medical Connect is built into all Nuance and partner cloud-enabled products and does not require additional licensing or configuration. However, given the breadth and depth of the Nuance partner ecosystem, it is important to understand how this feature works in the context of the applications you use.

(*Id.* at 39)

45. By providing the registration and access, Dragon Medical One includes means for determining that at least one result processing component in the list is associated with the context of the user at the first time in order for the Dragon



Medical One to be able to route the recognized speech data output from the speech recognition server to the appropriate application or electronic health record.

46. Finally, Dragon Medical One includes speech result provision means for providing the first speech recognition result to the applicable result processing components to facilitate the recognized speech being input into the appropriate application, such as Dragon Medical Advisor, Dragon Medical PowerPack™, and/or Dragon Medical Connect, and/or EHR, alone or embedded with Nuance's CAPD solutions:

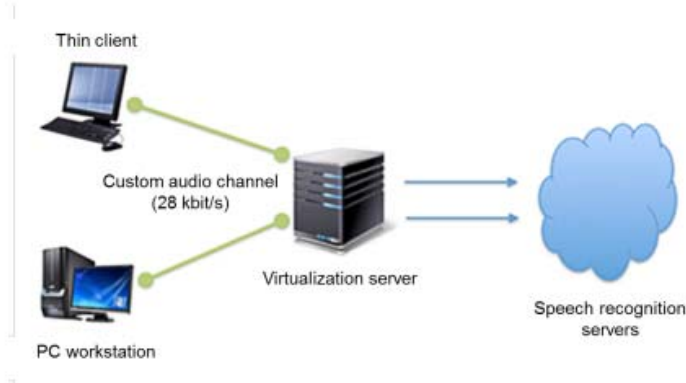
**“Healthcare compliant - Your *speech-related data is securely communicated* over 256-bit encryption channels using TLS protocols *into Epic®, Cerner®, eClinicalWorks, athenahealth®, MEDITECH®, GE®, McKesson® and dozens of other popular EHRs.*”**

(<https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-one.html>) (emphasis added and omitted).

### Audio channels

Nuance provides a custom audio channel to reduce the audio bandwidth requirements between the client end point and the virtual server. This custom audio channel requires 28 kbit/s for each user while they are dictating (native audio channels often require up to 1.4 Mbit/s).

To use the custom audio channel, deploy it on the server/virtual desktop where the application is hosted and on the client PC.



(Nuance Dragon Medical One Installation and Administration Guide at 17).

- During registration, the user specifies their Nuance Healthcare ID user name (a personal email address) and password; these are needed to activate it.
- After registration, the user activates the Nuance Healthcare ID separately for each app to speech-enable that app.
- The *My Nuance Healthcare ID* website lists all available mobile apps where users can activate their Dragon Medical speech recognition profile and access speech-enabled products.
- There is no additional cost for Dragon Medical in the mobile apps listed on the *My Nuance Healthcare ID* website but you must have an app installed on your mobile device, and have a license/rights to access it, before you activate your Nuance Healthcare ID.

(*Id.* at 37).

### Dragon Medical Connect

Dragon Medical Connect is a powerful feature that allows all speech-enabled, cloud-based applications - (Nuance-branded and third-party partner applications) - to share a single cloud-based user profile. The single-profile architecture means that any changes a user makes to custom words, auto-texts or commands are immediately available, to that user, in any application, on any device - anytime and anywhere. From a user's perspective, this feature provides a consistently superior experience when using Dragon Medical One Desktop Application, Dragon Medical Network Edition or any one of the speech-enabled, third-party applications that leverage Nuance's cloud-based platform.

Dragon Medical Connect is built into all Nuance and partner cloud-enabled products and does not require additional licensing or configuration. However, given the breadth and depth of the Nuance partner ecosystem, it is important to understand how this feature works in the context of the applications you use.

(*Id.* at 39).

47. Nuance’s Dragon Anywhere and Dragon Anywhere Group products, including at least Nuance’s use and/or its customers’ use (*see, e.g.*, Nuance 2017 10-K, *available at* <http://investors.nuance.com/static-files/26d3162b-1e13-411f-b54d-1f86ee691701>, at 18 (“We are seeing several trends in our markets, including (i) the growing adoption of cloud-based, connected services and highly interactive mobile applications...”); *id.* at 20 (“In fiscal year 2017, revenues and bookings from on-demand solutions continued to increase, as a growing proportion of customers choose our cloud-based solutions for call center, web, and mobile customer care solutions.”); *id.* at 31 (“Mobile segment profit increased by \$21.5 million, or 16.1%, during fiscal year 2017 as compared to fiscal year 2016, primarily due to higher revenues and gross margin. The gross margin improvement was primarily due to a favorable shift to higher margin cloud-based and licensing offerings.”); <https://play.google.com/store/apps/details?id=com.nuance.dragonanywhere&hl=en> (stated as having “50,000 – 100,000” installs) of Nuance’s Dragon Anywhere and Dragon Anywhere Group products, directly infringes one or more claims of the ’786 Patent, literally or under the doctrine of equivalents, including at least claim 1.

48. To the extent that the preamble of claim 1 of the ’786 Patent is a limitation, each of Dragon Anywhere and Dragon Anywhere Group is a cloud-based

software application that constitutes a “system.” (See, e.g., <https://www.nuance.com/dragon/dragon-anywhere.html> (“Accessing your Dragon Anywhere app is easy... 1 Purchase your Dragon Anywhere subscription from this online store, which will set up your user account. 2 Download the iOS and/or Android app from the App Store. 3 ***Launch the Dragon Anywhere app*** and enter the email address and password you specified in the online store.”) (emphasis added); <https://www.nuance.com/dragon/dragon-anywhere/dragon-anywhere-group.html> (“Enable your mobile workforce to complete documentation and reporting work and improve documentation turnaround in the field via iOS and Android smartphones and tablets. Introducing ***Dragon Anywhere Group, a cloud-based, professional-grade mobile dictation solution*** for enterprises of all sizes.”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“The dictation solution for mobile professionals: Dragon Anywhere is a professional-grade, cloud-based dictation app for busy professionals who want to work faster and smarter using their mobile device. Dragon Anywhere lets you customize words and create boilerplate text or commands to dictate and edit documents of any length by voice—quickly and accurately—directly on your iOS or Android device.”); [28](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-</a></p>
</div>
<div data-bbox=)

[sheet/ds-dragon-anywhere-group-en-us.pdf](#) (“The mobile dictation solution for enterprises: Dragon Anywhere Group for iOS and Android offers an enterprise-ready solution to enable professional-grade, cloud-based dictation for busy mobile professionals who want to work faster and smarter. Dictate and edit documents of any length quickly and accurately, and customize words and auto-texts that seamlessly sync with all your Dragon Group products. ... As an option, Dragon Anywhere Group’s industry-leading, cloud-based speech recognition can be integrated into your own mobile apps and platforms, mobilizing your workforce while keeping your preferred interface and existing workflow with backend systems such as record or case management systems.”)).

49. Each of the Dragon Anywhere and Dragon Anywhere Group applications may be run on a mobile device, including but not limited to a smartphone and a tablet, which includes “audio capture components” such as microphones. (See, e.g.: (<https://www.youtube.com/watch?v=rnsqVawvuJU>); (<https://www.youtube.com/watch?v=W-JlVZFTng8>); ([https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 31 (“Dictate when the microphone is green. The microphone remains On until you turn it Off or say "Microphone Off", leave the Dictation window or switch to another app.”)); (*id.* at p. 32 (“Remember

that unless you turn off the microphone, Dragon Anywhere will record everything it hears.”)); ([https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“Create entire documents on your mobile device simply by talking and see the results of your dictation or corrections immediately.”)); ([https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf))).

50. Each of Dragon Anywhere and Dragon Anywhere Group is a cloud-based speech platform that includes a speech recognition processing component having means for performing automatic speech recognition that produces first speech recognition results, e.g., text of dictated speech. (See [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“Plus, because speech recognition occurs in the cloud, your experience improves over time—without requiring that you update the app.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf) (“As an option, Dragon Anywhere Group’s industry-leading, cloud-based speech recognition can be integrated into your own mobile apps and platforms, mobilizing your workforce

while keeping your preferred interface and existing workflow with backend systems such as record or case management systems.”)).

51. Each of Nuance’s Dragon Anywhere and Dragon Anywhere Group cloud-based speech recognition platforms includes a first processing component that receives the output of the automatic speech recognition, which is configured to process the first speech recognition result into a first result output (i.e., input the recognized voice data into the Dragon Anywhere or Dragon Anywhere Group mobile app as texts or commands). (See, e.g., [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“Professional-grade, continuous dictation on mobile devices: *Dictate continuously without time or length limits to create, edit, format, navigate and select text—all by voice.* Create entire documents on your mobile device simply by talking and see the results of your dictation or corrections immediately.”) (emphasis added); *id.* (“Edit, format, select and navigate your text: Inline dictation commands enable fast correction, formatting, navigation and even photo insertion.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 5 (“When you dictate in Dragon Anywhere, your audio is encrypted and transmitted to our recognition servers in a

secure data center. The audio is converted to text, which is sent to your device. The audio for commands you speak is also sent to our servers and the resulting action is communicated to Dragon Anywhere.”); *see also* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf)).

52. Each of Nuance’s Dragon Anywhere and Dragon Anywhere Group cloud-based speech recognition platforms includes a second processing component that receives the output of the automatic speech recognition, which is configured to process the first speech recognition results to produce second result output (i.e., input the recognized voice data into the Dragon Anywhere or Dragon Anywhere Group mobile app as texts or commands). (*See, e.g.,* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 6 (“Using multiple devices: You can use Dragon Anywhere on multiple mobile devices where you've installed the app. When you log in with your username and password, your custom words and auto-texts will be retrieved from the central server. Therefore, you will receive the same recognition experience on all of your devices.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“Even if you have multiple mobile devices,



you can dictate on any one of them provided you use your personal account to automatically sync all customizations.”); *id.* (“Professional-grade, continuous dictation on mobile devices: ***Dictate continuously without time or length limits to create, edit, format, navigate and select text—all by voice.*** Create entire documents on your mobile device simply by talking and see the results of your dictation or corrections immediately.”) (emphasis added); *id.* (“Edit, format, select and navigate your text: Inline dictation commands enable fast correction, formatting, navigation and even photo insertion.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 5 (“When you dictate in Dragon Anywhere, your audio is encrypted and transmitted to our recognition servers in a secure data center. The audio is converted to text, which is sent to your device. The audio for commands you speak is also sent to our servers and the resulting action is communicated to Dragon Anywhere.”); *see also* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf))

53. Each of Nuance’s Dragon Anywhere and Dragon Anywhere Group also includes a “context sharing component” for identifying one of the first and second result processing components as being associated with a first context of the user at a

first time. For example, a user accesses his or her account and sets up his or her user profile by using the registered email address and password. Each of Dragon Anywhere and Dragon Anywhere Group keeps track of the user's mobile devices using his or her login information. (See, e.g., <https://www.nuance.com/dragon/dragon-anywhere.html> (“Accessing your Dragon Anywhere app is easy... 1 Purchase your Dragon Anywhere subscription from this online store, which will set up your user account. 2 Download the iOS and/or Android app from the App Store. 3 Launch the Dragon Anywhere app and ***enter the email address and password you specified in the online store.***”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 6 (“Using multiple devices: You can use Dragon Anywhere on multiple mobile devices where you've installed the app. When you log in with your username and password, your custom words and auto-texts will be retrieved from the central server. Therefore, you will ***receive the same recognition experience on all of your devices.***”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“And because you set up your own personal profile that continually adapts to your voice, words and corrections, you enjoy a personalized experience that gets even more accurate over time. Plus, because

speech recognition occurs in the cloud, your experience improves over time—without requiring that you update the app.”); *see also* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf)).

54. Each of Nuance’s Dragon Anywhere and Dragon Anywhere Group cloud-based speech recognition platforms also includes means for identifying a list of at least one result processing component authorized for use on behalf of the user at the first time. For example, each of Dragon Anywhere and Dragon Anywhere Group cloud-based platforms allows a user to access his or her personal voice profile on multiple mobile devices. Therefore, each of Dragon Anywhere and Dragon Anywhere Group cloud-based platforms includes a list of devices authorized for use by the user. (See, e.g., <https://www.nuance.com/dragon/dragon-anywhere.html> (“Accessing your Dragon Anywhere app is easy... 1 Purchase your Dragon Anywhere subscription from this online store, which will set up your user account. 2 Download the iOS and/or Android app from the App Store. 3 Launch the Dragon Anywhere app and *enter the email address and password you specified in the online store.*”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 6 (“Using multiple devices: You can

use Dragon Anywhere on multiple mobile devices where you've installed the app. When you log in with your username and password, your custom words and auto-texts will be retrieved from the central server. Therefore, you will *receive the same recognition experience on all of your devices.*) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“And because you set up your own personal profile that continually adapts to your voice, words and corrections, you enjoy a personalized experience that gets even more accurate over time. Plus, because speech recognition occurs in the cloud, your experience improves over time—without requiring that you update the app.”); *see also* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf)).

55. Each of Nuance’s Dragon Anywhere and Dragon Anywhere Group cloud-based speech recognition platforms includes means for determining that at least one result processing component in the list is associated with the context of the user at the first time. For example, each of Dragon Anywhere and Dragon Anywhere Group cloud-based platforms allows a user to access his or her personal voice profile on multiple mobile devices. Therefore, each of Dragon Anywhere and Dragon Anywhere Group cloud-based platforms determines that the mobile device in the list

is associated with the context of the user at the first time. (*See, e.g.,* <https://www.nuance.com/dragon/dragon-anywhere.html> (“Accessing your Dragon Anywhere app is easy... 1 Purchase your Dragon Anywhere subscription from this online store, which will set up your user account. 2 Download the iOS and/or Android app from the App Store. 3 Launch the Dragon Anywhere app and ***enter the email address and password you specified in the online store.***”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 6 (“Using multiple devices: You can use Dragon Anywhere on multiple mobile devices where you've installed the app. When you log in with your username and password, your custom words and auto-texts will be retrieved from the central server. Therefore, you will ***receive the same recognition experience on all of your devices.***”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“And because you set up your own personal profile that continually adapts to your voice, words and corrections, you enjoy a personalized experience that gets even more accurate over time. Plus, because speech recognition occurs in the cloud, your experience improves over time—without requiring that you update the app.”); *see also*

[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf)).

56. By providing the registration and access, each of Dragon Anywhere and Dragon Anywhere Group cloud-based platforms includes means for determining that at least one result processing component in the list is associated with the context of the user at the first time in order for each of Dragon Anywhere and Dragon Anywhere Group cloud-based platforms to be able to route the recognized speech data output from the speech recognition server to the appropriate mobile device.

57. Finally, each of Dragon Anywhere and Dragon Anywhere Group cloud-based speech recognition platforms includes speech result provision means for providing the first speech recognition result to the identified first one of the first and second result processing components. For example, each of Dragon Anywhere and Dragon Anywhere Group cloud-based platforms transmits the recognized speech to the identified mobile device. (See, e.g., <https://www.nuance.com/dragon/dragon-anywhere.html> (“Accessing your Dragon Anywhere app is easy... 1 Purchase your Dragon Anywhere subscription from this online store, which will set up your user account. 2 Download the iOS and/or Android app from the App Store. 3 Launch the Dragon Anywhere app and ***enter the email address and password you specified in the online store.***”) (emphasis added);

[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 6 (“Using multiple devices: You can use Dragon Anywhere on multiple mobile devices where you've installed the app. When you log in with your username and password, your custom words and auto-texts will be retrieved from the central server. Therefore, you will *receive the same recognition experience on all of your devices.*”) (emphasis added); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-en-us.pdf) (“And because you set up your own personal profile that continually adapts to your voice, words and corrections, you enjoy a personalized experience that gets even more accurate over time. Plus, because speech recognition occurs in the cloud, your experience improves over time—without requiring that you update the app.”); *see also* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/data-sheet/ds-dragon-anywhere-group-en-us.pdf)).

58. The above examples of how Nuance’s Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One, including at least Nuance’s use and/or its customers’ use of Nuance’s Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, along with Nuance’s Dragon Medical Advisor, Dragon Medical

PowerPack™, Dragon Medical Connect, and/or CAPD Solutions directly infringes claim 1 of the '786 Patent are non-limiting and based on information currently available to MModal. In particular, additional aspects of Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One may be identified that meet the limitations of claim 1 of the '786 Patent, additional claims of the '786 Patent may be determined to be infringed, and additional Nuance products may be identified as infringing once additional, non-public information is provided through the course of discovery.

59. Nuance also actively, knowingly, and intentionally induces infringement of one or more claims of the '786 Patent under 35 U.S.C. § 271(b) by actively encouraging others to use Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One, PowerMic II, PowerMic III, PowerMic Mobile, Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and CAPD Solutions. For example, Nuance offers its customers support for Dragon Medical One, PowerMic II, PowerMic III, PowerMic Mobile, Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and CAPD Solutions, “at every stage of the EHR lifecycle—from building, staffing, training, and going live to optimizing and sustaining success with all your health IT Investments.” (See



[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf)). Nuance also provides significant support documentation, including data sheets, white papers, and videos that demonstrate how its Dragon Anywhere, Dragon Anywhere Group, Dragon Medical One, PowerMic II, PowerMic III, PowerMic Mobile, Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and CAPD Solutions can be used. (See, e.g., <https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-one.html> at “Resources”; see also <https://www.nuance.com/dragon/dragon-anywhere.html> at “Resources”). Additionally, Nuance has at least one job posting for a “Trainer PS-Dragon Medical” Services, a role that requires leading “clinicians and medical staff members at various customer locations through the training process for all Dragon the deployment of our Outcome Based Learning, Coaching, Adoption and Sustainment Programs.” (See <https://jobs.nuance.com/job/salt-lake-city/trainer-ps-dragon-medical/843/7032504>). For at least Dragon Medical One, Nuance also provides EHR Services that are “aimed at helping clients successfully plan, execute, advance, and maintain EHR implementation to achieve financial, patient care, clinician satisfaction and productivity objectives.” (See <https://www.nuance.com/about-us/newsroom/press-releases/dragon-medical-one-accelerates-adoption.html>). Additionally, for at least Dragon Medical One and

Dragon Medical Advisor, Nuance offers its customers the support of the Nuance Customer Success Organization so that customers using the Dragon Medical Advisor product can “[i]mplement with confidence.” (emphasis omitted)(*See* [https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar\\_longcolumn](https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar_longcolumn)). Through the Nuance Customer Success Organization, Nuance encourages and instructs their customers to use the Dragon Medical One and Dragon Medical Advisor products in a manner that infringes the ’786 Patent:

#### Services

### Implement with confidence

Get the most out of our solutions by working with the Nuance Customer Success Organization. Our assessment tools, support, and guidance make all the difference when it comes to assessing physician utilization and CDI opportunities. From day one, your Customer Success Manager will monitor utilization, adoption, and other outcome KPIs—and proactively engage with you to drive maximum value over time. With continual feedback, you can make decisions based on actual data to create measurable clinical and business results.

[Contact us to learn more](#)

(*See id.*). Through this customer support, Nuance encourages, directs, and instructs their customers to use Nuance’s Dragon Anywhere, Dragon Anywhere Group, Dragon Medical One, PowerMic II, PowerMic III, PowerMic Mobile, Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and CAPD Solutions in a manner that infringes the ’786 Patent.

60. Nuance also induces infringement of the '786 Patent by their customers by configuring Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, along with Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and/or CAPD Solutions to operate in a manner that Nuance knows infringes that '786 Patent and by encouraging their customers to use Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One in a manner that Nuance knows infringes the '786 Patent. In addition, Nuance also encourages, directs, and instructs their customers to use Nuance's Dragon Medical One and PowerMic Mobile in a manner that Nuance knows infringes the '786 Patent through the use of promotional videos (*See, e.g.,* <https://www.youtube.com/watch?v=Cb7yXUVfiYI> at 0:36-0:41 (“Using the Dragon Medical One desktop app, clinicians can now interact with the EHR from anywhere”); <https://www.youtube.com/watch?v=OjoqiePRFtl> at 0:43-0:51 (“With PowerMic Mobile I, can work more flexibly for more places with a single easy-to-use microphone. I’m not tethered to a specific device . . . .”). Further, Nuance encourages, directs, and instructs their customers to use Nuance's Dragon Anywhere and Dragon Anywhere Group in a manner that Nuance knows infringes the '786

Patent through the use of tips and tutorials (*See, e.g.,* <https://www.nuance.com/dragon/dragon-anywhere/blog.html>).

61. Nuance further actively, knowingly, and intentionally contributorily infringes one or more claims of the '786 Patent under 35 U.S.C. § 271(c) by knowingly making, selling, and/or offering to sell in the United States, and/or importing into the United States Nuance's Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, along with Nuance's Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and/or CAPD Solutions. These products are a material part of claim 1 of the '786 Patent, have no substantial non-infringing uses, are not a staple article of commerce, and are specially made and adapted for use in an infringing manner. For example, Dragon Anywhere, Dragon Anywhere Group and Dragon Medical One, alone and/or with PowerMic II, PowerMic III, and PowerMic Mobile, along with Nuance's Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and/or CAPD Solutions is an application comprising an audio capture component, the audio capture component comprising means for capturing a first audio signal representing first speech of a user to produce a first captured audio signal; a speech recognition processing component comprising means for performing automatic speech recognition on the first captured audio signal

to produce first speech recognition results; a first result processing component, the first result processing component comprising first means for processing the first speech recognition results to produce first result output; a second result processing component, the second result processing component comprising second means for processing the first speech recognition results to produce second result output; a context sharing component comprising means for identifying a first one of the first and second result processing components as being associated with a first context of the user at a first time, the context sharing component further comprising: means for identifying a list of at least one result processing component authorized for use on behalf of the user at the first time; and means for determining that the at least one result processing component in the list is associated with the context of the user at the first time; and speech recognition result provision means for providing the first speech recognition results to the identified first one of the first and second result processing components.

62. Upon information and belief, Nuance has been aware of MModal and of its proprietary technologies and intellectual property assets as evidenced by Nuance's proposals to acquire MModal and its predecessor companies. Apart from this knowledge, Nuance has had knowledge of the '786 Patent since at least the filing of this lawsuit.

**COUNT TWO – INFRINGEMENT OF THE '829 PATENT**

63. On July 15, 2014, the United States Patent and Trademark Office (“USPTO”) duly and legally issued the '829 Patent, entitled “Document Extension in Dictation-Based Document Generation Workflow,” to inventors Detlef Koll, Juergen Fritsch, and Michael Finke after a full and fair examination. MModal is the owner by assignment of the entire right, title and interest in and to the '829 Patent, including the sole and undivided right to sue for all past, present and future infringement. A copy of the '829 Patent is attached hereto as Exhibit C.

64. The '829 Patent is generally directed to a method of ensuring a generated structured document's compliance with one or more best practices. In particular, the structured document is created from the speech-recognized contents of an audio signal, is then checked against a set of known best practices, and is incorporated with additional user inputs if certain best practices requirements are not met.

65. By way of example only, claim 1 of the '829 Patent recites:

A computer-implemented method performed by at least one computer processor, the method comprising:

(A) applying automatic speech recognition to an audio signal to produce a structured document representing contents of the audio signal;

(B) determining whether the structured document includes an indication of compliance for each of a plurality of best practices to produce a conclusion;

(C) inserting content into the structured document, based on the conclusion, to produce a modified structured document;

(D) generating a first indication that a user should provide additional input of a first type to conform the structured document to a first best practice in the plurality of best practices; and

(E) generating a second indication that the user should provide additional input of a type to conform the structured document to a second best practice in the plurality of best practices.

66. The claimed invention of the '829 Patent provided an unconventional solution to address problems with existing computer speech recognition technology by, for example, generating structured documents via applying automatic speech recognition on users' freeform audio inputs, checking the documents' compliances with known best practices, and ensuring the documents' compliances by requesting additional inputs from the users.

67. One benefit of the claimed invention of the '829 Patent was that it increases the accuracy of resulting reports, either by guiding the user toward providing more complete information that is compliant with best practices, or by obtaining and inserting such information into the report automatically. Reduced errors and higher degrees of completeness were particularly beneficial in contexts, such as medical reporting, in which the accuracy and completeness of reports impact

human health and safety, and in which accurate and complete reports were necessary to comply with regulations and obtain reimbursement for the procedures that resulted in the reports. These advantages of the claimed invention of the '829 patent did not exist in prior art systems, which were incapable of automatically generating structured documents from users' freeform speeches. Instead, as discussed in the '829 Patent, prior art systems could only either (1) produce freeform notes from a user's freeform speech or (2) tediously make a user provide (audio) inputs for fields of a structured document one by one. Thus, the claimed invention of the '829 Patent represented a substantial improvement in computer speech recognition technology as it was more efficient and reduced the burden on the user compared to prior art speech recognition systems.

68. Another advantage of the claimed invention of the '829 Patent was that by reminding a physician and/or other user to take a recommended or required action (such as performing a procedure on a patient), the user could be reminded to take such action and thereby be more likely to take the action. Even if the user was reminded of the action to take at a time when it is no longer possible to take the action in connection with the event that led to the creation of the report (such as a patient visit), the user might be reminded of the need to take the action in similar circumstances in the future. In this way, embodiments of the claimed invention



educate users and increase the likelihood that they will take recommended and/or required actions in the future.

69. Nuance’s Dragon Medical and CAPD solutions, including at least Nuance’s use and/or its customers’ use (*see, e.g.,* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/nc\\_040699.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/nc_040699.pdf) (“More than 500,000 clinicians and 10,000 healthcare facilities worldwide leverage Nuance’s . . . clinical documentation solutions . . . .”)) [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf) (“72% of U.S. hospitals use Nuance.”)) of Nuance’s Dragon Medical Advisor with Dragon Medical One (hereafter collectively referred to as “Dragon Medical Advisor”), directly infringes one or more claims of the ’829 Patent, literally or under the doctrine of equivalents, including at least claim 1.

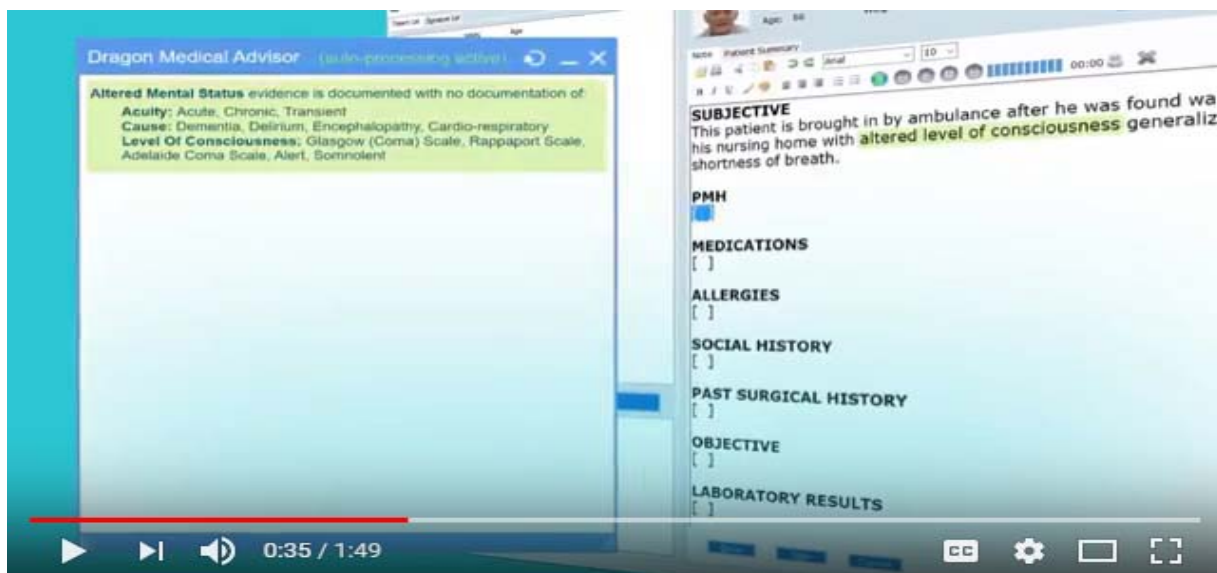
70. To the extent that the preamble of claim 1 of the ’829 Patent is a limitation, Nuance’s Dragon Medical Advisor is computer-implemented. (*See* <https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html> (describing Dragon Medical Advisor as having “[c]loud-based delivery [] integrated with Dragon Medical One”); <https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-one.html> (describing Dragon Medical One as a “desktop application” that

provides “cloud-based clinical speech recognition across a wide range of Windows devices”)).

71. Dragon Medical Advisor also applies automatic speech recognition to an audio signal to produce a structured document representing the contents of the audio signal. Specifically, Dragon Medical Advisor is used as part of a cloud-based speech platform (i.e., it includes one or more servers) for receiving and transcribing speech (i.e., it performs automatic speech recognition to create structured documents representing the content of the audio signals). (*See, e.g.,* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-one-en-us.pdf) (describing Dragon Medical One as “Cloud-based clinical speech recognition for documenting care in the EHR and beyond”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-advisor-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-advisor-en-us.pdf) (“Dragon<sup>®</sup> Medical Advisor is a next-generation CAPD solution, backed by artificial intelligence, that works with Dragon Medical One to analyze physicians’ notes in real time—whether dictating, typing, using template-based documentation or using any combination of methods.”)).

72. Dragon Medical Advisor also determines whether the structured document includes an indication of compliance for each of a plurality of best practices to produce a conclusion. For example, Dragon Medical Advisor works in

coordination with its Dragon Medical One speech recognition solution to analyze physicians' notes and identify areas where additional specificity is needed, such as to comply with best practices for diagnosing and describing a medical condition. In the example below, Dragon Medical Advisor has alerted the clinician that the described condition of an "altered level of consciousness" should be supplemented with a description of the acuity of the mental status, cause, and level of patient consciousness. This additional specificity is requested in order to comply with best practices for payment models.

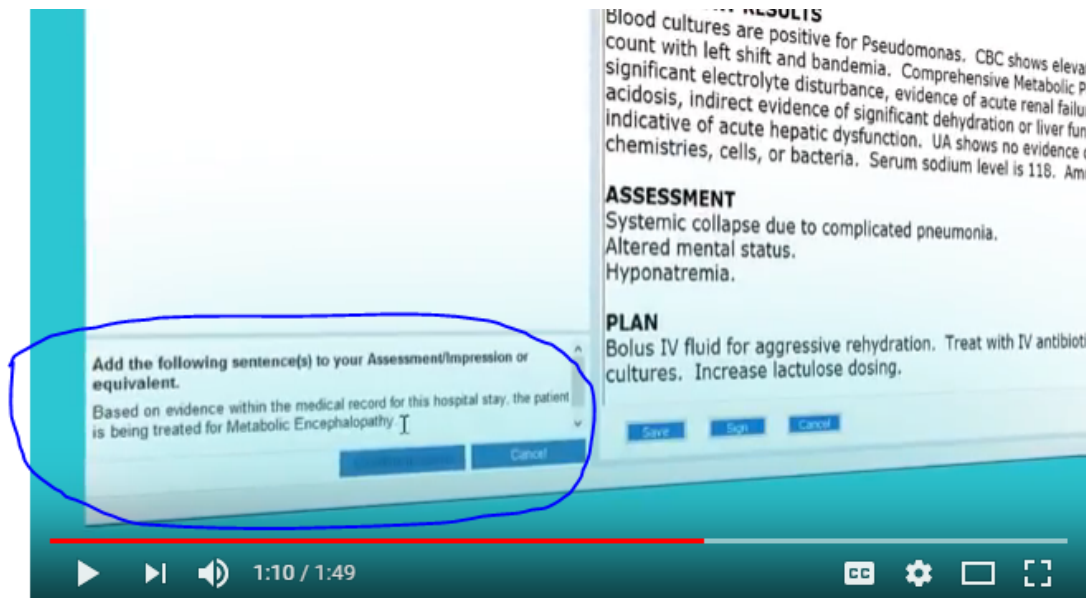


([https://www.youtube.com/watch?time\\_continue=8&v=K2eIMEodEhM](https://www.youtube.com/watch?time_continue=8&v=K2eIMEodEhM) at 0:32-0:50) ("Dragon Medical Advisor provides real-time feedback searching for specificity opportunities that accelerate billing for inpatient stays *and prompts for quality indicators. It offers a more accurate reflection of disease and resource*

*burden and increases diagnostic specificity to support outpatient risk adjusted payment models.”)* (emphasis added); *see also*

[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/ds-dragon-medical-advisor-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/ds-dragon-medical-advisor-en-us.pdf) (“As an intelligent workflow companion, Dragon Medical Advisor *identifies areas where additional specificity is necessary* and prompts the physician with the options for that detail...Dragon Medical Advisor analyzes patient notes as they’re being created so physicians can immediately update their documentation with the appropriate level of specificity while details of the patient visit are in front of them.”)(emphasis added)).

73. Dragon Medical Advisor also inserts content into the structured document, based on the conclusion, to produce a modified structured document. For example, Dragon Medical Advisor can prompt a clinician of additional documentation detail that should be added (as shown in Paragraph 72 immediately above) and/or alert the clinician of a potential diagnosis (as shown below) and provide sample text and/or the option to insert freeform text to a medical note or electronic health record:



(See <https://www.youtube.com/watch?v=K2eIMEodEhM> at 1:10).

74. Dragon Medical Advisor also generates a first indication that a user should provide additional input of a first type to conform the structured document to a first best practice in the plurality of best practices. For example, and as shown above, it generates prompts and/or alerts to flag potential missed diagnoses and/or missing details required to provide the appropriate level of specificity in the medical note to support outpatient risk adjusted payment models. (See also <https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html> (“An *in-workflow virtual advisor analyzes patient notes* as they’re being created so physicians can *update their documentation with the appropriate level of specificity* while details of the patient visit are in front of them. It also reduces post-discharge and out-of-context queries that alleviate downstream

burden and increase clinician satisfaction.”) (emphasis added); <https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html> (“Dragon Medical Advisor works in seamless coordination with the Dragon Medical One speech recognition workflow, *to analyze physicians’ notes in real time*. An intelligent workflow companion, *Dragon Medical Advisor identifies areas where additional specificity is needed and unobtrusively notifies and prompts the physician.*”)(emphasis added)).

75. Dragon Medical Advisor also generates a second indication that the user should provide additional input of a type to conform the structured document to a second best practice in the plurality of best practices. As an example, it generates a second prompt and/or alert to flag potential missed diagnoses and/or missing details required in the medical note to support outpatient risk adjusted payment models:

Webinar: Improve clinical performance with cognitive technologies

**Electronic Health Record (EHR)**

You have 2 unanswered clarifications.

**Mrsa Pneumonia**

The following evidence supports a diagnosis of Mrsa Pneumonia:

- cough
- sputum
- health care facility environment
- mrna colonization
- rales
- chest x-ray infiltrate
- health care facility associated pneumonia
- fever
- pneumonia
- Temperature Very High
- WBC Very High
- MRSA Antibiotics
- broad spectrum Antibiotics

For this clarification, consider one of these responses:

- 1 ☐ Agree
- 2 ☐ Provide To Add Alternate Text
- 3 ☐ Ask Again Later
- 4 ☐ Does Not Apply

**Sepsis**

**Patient Summary**

Marjorie Southland [Visit ID: v0319944]

MRN: mmo319945 Sex: Female Blood Pressure: 160/98mmHg  
 DOB: 5/15/1928 Height: 5' 8" Pulse:  
 Age: 88 Weight: 152 lbs Temperature: 99F

**Note**

History of present illness: 87-year-old white female, resident of a nursing home. Treated for diabetes mellitus and congestive heart failure. History of MRSA colonization 2 days prior to admission developed a cough productive of colored phlegm. Day prior to admission developed a fever to 39°C. Day of admission became acutely short of breath and was referred to the Emergency Department.

Past Surgical History:  
 Cholecystectomy March 15, 2012

Review of Systems: A complete review of 13 systems was otherwise negative including constitutional, skin, neurologic, psychiatric, eyes, ears nose and throat, hematologic lymphatic, endocrine, cardiovascular, respiratory, gastrointestinal, urologic and musculoskeletal.

Social history: Smokes one half pack of cigarettes per day. Drinks 2 ounces of alcohol per day.

Medications: Aspirin 81 mg p.o. daily  
 Enalapril 10 mg p.o. daily  
 Glimepiride 2 mg p.o. daily  
 Metformin 500 mg p.o. qid  
 Pravachol 10 mg p.o. daily  
 Lasix 40 mg p.o. daily  
 Lanoxin 125 mcg p.o. daily

Allergies: Clindamycin

Physical examination: Pulse 110. Blood pressure 160/88. Respirations 22. Temperature 39.5°C.  
 HEENT is negative. Neck supple thyroid not enlarged. Lungs show dullness to percussion at the right base with diminished breath sounds and rales. Egophony is present. Cardiac shows distant heart tones with a 2/6 systolic ejection murmur. Abdomen is negative. Extremities show no cyanosis or clubbing.

Results: Chest x-ray shows infiltrate at the right base with blunting of the right costophrenic angle. WBC 18000 with left shift.

**ASSESSMENT**  
 Nursing home acquired pneumonia

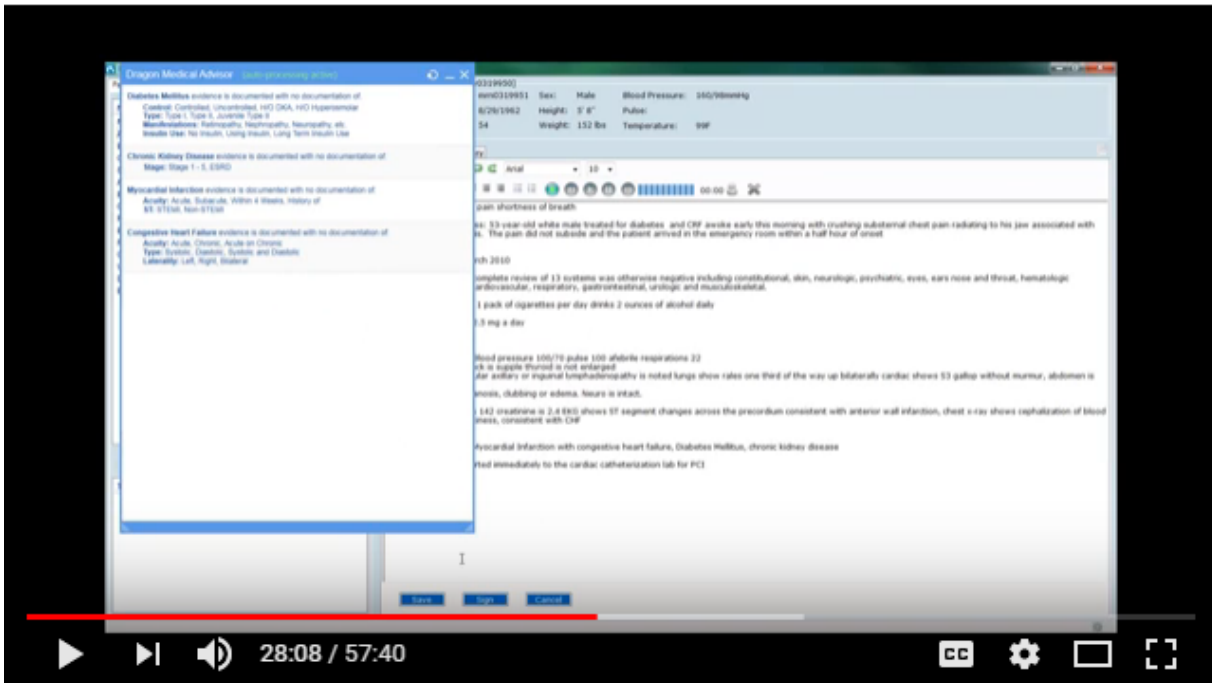
**PLAN**  
 Admit for treatment with intravenous clindamycin and intravenous levofloxacin.

Save Sign Cancel

25:43 / 57:40

(<https://www.youtube.com/watch?v=MJx8SNaNPrQ> at 25:27-26:44 (“...And what this note has done is it has *extracted two concepts* that are missing from the note: *one* is the type of pneumonia. The patient has methicillin-resistant *Staph aureus* pneumonia... has a history of MRSA, and has all of these other findings, and then what we do is we allow the clinician to agree with that assessment and provide text that can be added to the note. *Second* thing and equally important...this patient is indeed tachycardic, tachypneic, febrile, has an infection, has a mildly low blood pressure. This patient has sepsis. It does not say so in the note, but *we have identified that that is a diagnosis that is supported by evidence in the note* and asks

*the clinician to add that to the note*, and the clinician can do it very simply. And if you look at the note, you will see that those diagnoses have been added, that the patient has now MRSA and sepsis.”)(emphasis added)).



(<https://www.youtube.com/watch?v=MJx8SNaNPrQ> at 26:56-29:02 (“The *second aspect* is the question of *specificity of diagnosis*...What this doesn’t show, but what we can identify...is we can identify that none of the four diagnoses mentioned in *this note have enough specificity for us to be able to assess severity of illness, risk of mortality, other aspects in terms of...the performance of quality measures, and, incidentally, better ICD-10 coding, better billing, and better reimbursement under HCCs for an ACO*. And, for me as a clinician, most important in terms of improving



the quality of care, it improves the diagnostic specificity of the note, so that my partner, when she rounds on this patient tomorrow morning, knows exactly what I think is wrong and *how to deal with the patient best* by improving the specificity.”) (emphasis added)).

76. The above examples of how Nuance’s Dragon Medical Advisor directly infringe claim 1 of the ’829 Patent are non-limiting and based on information currently available to MModal. In particular, additional aspects of Nuance’s Dragon Medical Advisor solution may be identified that meet the limitations of claim 1 of the ’829 Patent, additional claims of the ’829 Patent may be determined to be infringed, and additional Nuance products may be identified as infringing once additional, non-public information is provided through the course of discovery.

77. Nuance also actively, knowingly, and intentionally induces infringement of one or more claims of the ’829 Patent under 35 U.S.C. § 271(b) by actively encouraging others to use Dragon Medical Advisor. Nuance offers its customers the support of the Nuance Customer Success Organization so that customers using the Dragon Medical Advisor product can “[i]mplement with confidence.” (emphasis omitted)(See

[https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar\\_longcolumn](https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar_longcolumn)). Through the Nuance

Customer Success Organization, Nuance encourages and instructs their customers to use the Dragon Medical Advisor product in a manner that infringes the '829 Patent:

#### Services

### Implement with confidence

Get the most out of our solutions by working with the Nuance Customer Success Organization. Our assessment tools, support, and guidance make all the difference when it comes to assessing physician utilization and CDI opportunities. From day one, your Customer Success Manager will monitor utilization, adoption, and other outcome KPIs—and proactively engage with you to drive maximum value over time. With continual feedback, you can make decisions based on actual data to create measurable clinical and business results.

[Contact us to learn more](#)

(*See id.*). In addition, Nuance offers its customers support for Dragon Medical Advisor, “at every stage of the EHR lifecycle—from building, staffing, training, and going live to optimizing and sustaining success with all your health IT Investments.”

(*See*

[https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf)). Nuance also provides significant support documentation, including data sheets, white papers, and videos that demonstrate how its Dragon Medical One, PowerMic II, PowerMic III, PowerMic Mobile, Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and CAPD Solutions can be used. (*See, e.g.,* <https://www.nuance.com/healthcare/physician->

[and-clinical-speech/dragon-medical-one.html](#) at “Resources”). Additionally, Nuance has at least one job posting for a “Trainer PS-Dragon Medical” Services, a role that requires leading “clinicians and medical staff members at various customer locations through the training process for all Dragon the deployment of our Outcome Based Learning, Coaching, Adoption and Sustainment Programs.” (See <https://jobs.nuance.com/job/salt-lake-city/trainer-ps-dragon-medical/843/7032504>). Through this customer support, Nuance not only establishes the manner and timing of performance, but also encourages, conditions, and instructs their customers to use Nuance’s Dragon Medical Advisor in a manner that infringes the ’829 Patent.

78. Nuance also induces infringement of the ’829 Patent by their customers by configuring the Nuance Dragon Medical Advisor product to operate in a manner that Nuance knows infringes that ’829 Patent and by encouraging, conditioning, and instructing their customers to use the Dragon Medical Advisor product in a manner that Nuance knows infringes the ’829 Patent.

79. Nuance further actively, knowingly, and intentionally contributorily infringes one or more claims of the ’829 Patent under 35 U.S.C. § 271(c) by knowingly making, selling, and/or offering to sell in the United States, and/or importing into the United States Nuance’s Dragon Medical Advisor. This product is a material part of practicing at least the method of claim 1 of the ’829 Patent, has

no substantial non-infringing uses, is not a staple article of commerce, and is specially made and adapted for use in an infringing manner. For example, Dragon Medical Advisor is a computer-implemented application specifically designed and intended to apply automatic speech recognition to a structured document representing the contents of an audio signal to determine whether the structured document includes an indication of compliance for each of a plurality of best practices to produce a conclusion, insert content into the structured document based on the conclusion to produce a modified structured document, generate a first indication that a user should provide additional input of a first type to conform the structured document to a first best practice in the plurality of best practices, and generate a second indication that the user should provide additional input of a type to confirm the structured document to a second best practice in the plurality of best practices.

80. Upon information and belief, Nuance has been aware of MModal and of its proprietary technologies and intellectual property assets as evidenced by Nuance's proposals to acquire MModal and its predecessor companies. Apart from this knowledge, Nuance has had knowledge of the '829 Patent since at least the filing of this lawsuit.

**COUNT THREE– INFRINGEMENT OF THE '524 PATENT**

81. On April 2, 2013, the USPTO duly and legally issued the '524 Patent, entitled “Replacing Text Representing a Concept with an Alternative Written Form of the Concept,” to inventor Kjell Schubert after a full and fair examination. MModal is the owner by assignment of the entire right, title and interest in and to the '524 Patent, including the sole and undivided right to sue for all past, present and future infringement. A copy of the '524 Patent is attached hereto as Exhibit D.

82. The '524 Patent is generally directed to a method of identifying alternative forms (e.g., an abbreviation) of a given form of a word or concept (e.g., long, non-abbreviated phrase) in a document. In response to a user input, the system replaces the word or concept with the chosen alternative form after receiving an instruction from the user to do so.

83. By way of example only, claim 1 of the '524 Patent recites:

A computer-implemented method for use with a document tangibly stored in a first computer-readable medium, the method comprising:

(A) accessing the first computer-readable medium to identify a first phrase within the document, the first phrase representing a first written form of a concept;

(B) identifying a plurality of phrases tangibly stored in a second computer-readable medium, each of the plurality of phrases representing an alternative written form of the concept;

(C) displaying at least some of the plurality of phrases to a user; and

(D) receiving, from the user, an instruction to replace the first phrase with one of the plurality of phrases in the document on the first computer-readable medium, wherein the instruction does not include the one of the plurality of phrases.

84. The claimed invention of the '524 Patent provided an unconventional solution to address problems with existing computer speech recognition technology by, for example, simplifying and automating the process of replacing one written form of a concept with another.

85. In prior art in the field of the '524 Patent, various techniques had been developed which attempted to automatically detect and correct errors in draft documents, with the intent of producing a document which was as close to a verbatim transcript of the source speech as possible. In some circumstances, however, it was desirable to produce a document which is not necessarily a verbatim transcript of the source speech. For example, a medical transcriptionist would be required to transcribe a dictated medical report into a document having a particular format that is dictated by law or policy. The mandatory document format would require, for example, that certain terms be transcribed using prescribed abbreviations (e.g., acronyms), regardless of the form in which such terms were dictated. In such an example, the transcriptionist would need to produce documents which were not verbatim transcripts of the source speech from which the documents are produced.

86. An example might be an automatic speech recognizer producing a draft transcript of a dictated medical report. A medical transcriptionist would be assigned to review and edit the draft transcript to produce a final transcript or other report based on the dictation. The draft transcript might include the phrase “cerebrovascular accident,” which is a verbatim transcription of the phrase dictated by the doctor. However, the medical transcriptionist might be required to use the abbreviation “CVA” in the transcript in place of the expanded form “cerebrovascular accident.” Such an abbreviation might be required, for example, by the format of the particular report being produced by the transcriptionist.

87. The medical transcriptionist could make the draft document comply with the required report format by manually deleting the phrase “cerebrovascular accident” and manually typing “CVA” in its place. This solution, however, would be tedious and time-consuming.

88. Alternatively, the medical transcriptionist could use a global “search and replace” command to replace all instances of “cerebrovascular accident” with “CVA”. But making such modifications in this way has a number of disadvantages. For example, it might be desirable or necessary for the transcriptionist to edit the draft transcript serially, in other words, by reviewing the transcribed text in sequence and making modifications as they were observed. The medical transcriptionist

might, for example, edit the draft transcript while listening to a recording of the source speech. A global “search and replace” command would make modifications to the document out of sequence, thereby breaking the flow of the editing process.

89. Furthermore, a global “search and replace” command might actually introduce errors into the draft transcript. For example, it might be necessary to use the phrase “cerebrovascular accident” in certain sections of the document and “CVA” in other sections of the document. Simply replacing all instances of “cerebrovascular accident” with “CVA” would produce a result inconsistent with such a report format, thereby requiring further review and editing by the medical transcriptionist.

90. In summary, one problem faced by the medical transcriptionist was that a draft transcript might contain an expanded written form (e.g., “cerebrovascular accident”) of a particular concept when an abbreviated written form (e.g., “CVA”) is needed or desired, and that the transcript may contain the abbreviated written form of the concept when the expanded written form is needed or desired. It might be difficult or impossible to provide an automated system for consistently producing the correct written form because, for example, the correct choice of written form (e.g., expanded or abbreviated) might depend on context. As a result, the claimed



invention of the '524 Patent addressed the need for a system that simplified and automated the process of replacing one written form of a concept with another.

91. The claimed invention '524 Patent provided numerous advantages. It decreased the time and effort required by the transcriptionist to edit the draft transcript and thereby to produce the edited transcript. Time and effort were reduced because the transcriptionist needed not manually type corrections to text in the draft transcript. Instead, the transcriptionist would make such corrections simply by identifying the text to be modified, and by issuing an instruction to replace that text with an alternate written form of the same concept. The instruction itself needed not contain the replacement text. The transcriptionist would perform such actions using one or a small number of gestures, such as a single mouse click to identify the text to be modified and a single keystroke to issue the replacement instruction.

92. In addition to reducing the number of physical gestures performed by the transcriptionist, the claimed invention of the '524 Patent also reduced the burden on the transcriptionist to remember and identify the replacement text. In a prior art system, if the transcriptionist saw the phrase "cerebrovascular accident" and recognized that it needed to be replaced with an abbreviation, the transcriptionist might need to remember that the correct replacement abbreviation is "CVA," rather than "CV" or "CA." The claimed invention of the '524 Patent reduced or eliminated

the need for the transcriptionist to remember the correct replacement text. If, for example, the written form dictionary contained a single mapping from the expanded form “cerebrovascular accident” to the abbreviation “CVA,” then the transcriptionist would simply select the expanded form and issue the replacement instruction, in response to which the editing system would automatically replace the expanded form with the correct abbreviation. Even in cases where there are more than two alternate written forms of a particular concept, the system’s ability to display the available alternatives to the transcriptionist reduced the burden on the transcriptionist to remember such alternatives and to select the correct one for use as replacement text.

93. Because the techniques disclosed herein could be used in conjunction with draft transcripts generated by automatic speech recognizers, the time and effort required by the transcriptionist were further reduced in comparison to prior art systems requiring the transcriptionist to manually transcribe the spoken audio stream.

94. Because the techniques disclosed herein could be used to make changes to individual phrases as they were being observed by the transcriptionist, such techniques were suitable for use in conventional document transcription workflows. Unlike a conventional word processor global search and replace function, for example, the techniques disclosed herein did not require changes to be made out-of-

sequence in the transcript. Furthermore, the transcriptionist would identify text requiring correction while viewing the document in sequence, and while listening to the corresponding audio stream. Such techniques would therefore be seamlessly integrated into conventional document transcription workflows.

95. The claimed invention of the '524 Patent would select potential and actual replacement text based not only on the text to be replaced but also on the context of such text in the draft transcript. For example, the set of available alternate written forms would differ depending on the section of the draft transcript in which the first phrase appears. This simplified the transcriptionist's task, because it limited the number of alternatives the transcriptionist needed to consider, and reduced the likelihood that the transcriptionist will select the wrong replacement text by preventing the transcriptionist from selecting replacement text that had been determined not to be appropriate for the current context.

96. Furthermore, the claimed invention of the '524 Patent improved the overall quality of the resulting edited transcript, such as by facilitating adherence to formatting instructions and compliance with best practices. For example, the transcriptionist would be presented with only those alternate written forms that adhere to formatting instructions or that comply with best practices. Presentation of such alternate written forms to the transcriptionist reduced the burden on the

transcriptionist to remember which alternate written forms complied with the formatting instructions and/or best practices, and thereby increased the likelihood that such formatting instructions and/or best practices will be followed.

97. The claimed invention of the '524 Patent was used not only to replace abbreviations with their expanded forms, but also to replace expanded forms with their abbreviations. This feature was beneficial because, for example, an abbreviated written form of a concept might be appropriate for use in a certain context, while an expanded written form of the same concept might be appropriate for use in a different context. The claimed invention of the '524 Patent enabled the transcriptionist to make replacements in either direction easily depending on the current context and/or other considerations. Thus, the claimed invention of the '524 Patent represented a substantial improvement in computer speech recognition technology as it was more efficient and reduced the burden on the user compared to prior art speech recognition systems.

98. Nuance's Dragon speech recognition products (e.g., Dragon Medical One, Dragon Naturally Speaking, Dragon Anywhere, PowerMic and PowerMic Mobile, and, on information and belief, Dragon Medical eScription), including at least Nuance's use and/or its customers' use (*see, e.g.,* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-)

[sheet/nc\\_040699.pdf](#) (“More than 500,000 clinicians and 10,000 healthcare facilities worldwide leverage Nuance’s . . . clinical documentation solutions . . . .”)) [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf) (“72% of U.S. hospitals use Nuance.”)) of Nuance’s Dragon speech recognition products, directly infringe one or more claims of the ’524 Patent, literally or under the doctrine of equivalents, including at least claim 1.

99. To the extent that the preamble of claim 1 of the ’524 Patent is a limitation, Nuance’s Dragon speech recognition products are computer-implemented products such as software or mobile applications. (*See, e.g.,* <https://www.nuance.com/dragon/dragon-anywhere.html> (“Dragon Anywhere, available on Android and iOS. Now you can dictate documents of any length, easily edit and adjust formatting and quickly share them on the most popular cloud-sharing services directly from your iOS or Android smartphone or tablet.”)); <https://www.nuance.com/dragon.html> (“From making status updates and searching the web to creating reports and spreadsheets, Dragon speech recognition software lets you do it all—faster and more efficiently—whether you’re a student, a professional, or an enterprise user.”)).

100. Nuance’s Dragon speech recognition products also recognize speech and generate documents (e.g., Word documents, email documents, medical notes or

EHRs). (See, e.g., <https://www.nuance.com/dragon.html> (“There’s a Dragon for everyone who wants to be more productive. From making status updates and searching the web to creating reports and spreadsheets, Dragon speech recognition software lets you do it all—faster and more efficiently—whether you’re a student, a professional, or an enterprise user.... Control your computer by voice with speed and accuracy. Dragon speech recognition software is better than ever. Talk and your words appear on the screen. Say commands and your computer obeys.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-professional-group-client-installation-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-professional-group-client-installation-en-us.pdf) (“The physical configuration of Dragon includes: Dragon clients – Client computers with Dragon installed.”) (emphasis omitted)).

101. The documents generated by the Nuance’s Dragon speech recognition products are stored in a computer-readable medium, such as in RAM or disk. (See, e.g., [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-anywhere-user-manual-en-us.pdf) at p. 57 (“As you dictate, your documents are saved automatically on your local device every 5 seconds.”); [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-professional-group-client-installation-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-professional-group-client-installation-en-us.pdf) at p. 18 (“Recommended

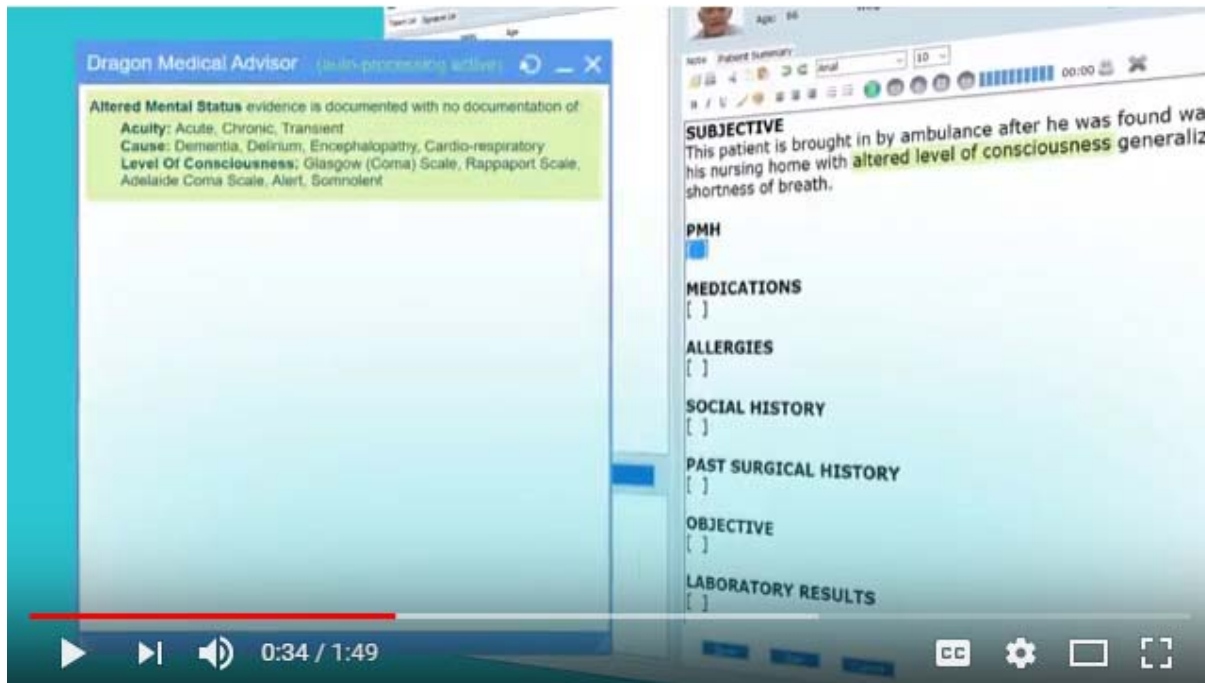
virtual memory settings. Set Virtual Memory to 4092 on Windows Server, or to the maximum possible setting on workstations that have 4 GB of RAM.”) (emphasis omitted)).

102. Nuance’s Dragon speech recognition products also identify a first phrase within the document that represents a first written form of a first concept. For example, the Dragon products analyze a document searching for words corresponding to a first written concept, including abbreviations, dates/times, currencies, medical or legal terms, and proper names. (See <https://www.youtube.com/watch?v=SQPvvMUczPg> at 0:28-36 (“The region you select determines how words are spelled and how *certain expressions, like dates and currencies, are automatically formatted.*”); [https://supportcontent.nuance.com/healthcare/documents/sales/opmanual/DM360Direct/DMO\\_3.x\\_UserGuide\\_L-3864.pdf](https://supportcontent.nuance.com/healthcare/documents/sales/opmanual/DM360Direct/DMO_3.x_UserGuide_L-3864.pdf) at p. 19 (“Exercise 2: . . . Enter the word you want to add: James Slayback Memorial Medical Center . . . Pronunciation: JSMMC . . . Best Practice: In the Pronunciation field, type the words in lowercase unless it is an acronym. Acronyms must be in UPPERCASE. If a word is not easily recognized try to add as a phrase.”) (emphasis omitted); <http://dragoncontent.nuance.com/customerPortal/DNS10UserGuide.pdf> at p. 19 (“Your user files store acoustic information about your voice that Dragon uses to

recognize what you say. These files also store any changes you make to the standard vocabulary—any specialized words, names, acronyms, and abbreviations you add.”); *id.* at pp. 114-115 (“**Dictating abbreviations and acronyms - *Dragon knows many common abbreviations* (such as NYC and BBC) *and acronyms* (such as NATO).** To dictate an abbreviation or acronym, just say it as you normally would...*If Dragon types the full word instead of the abbreviation or acronym,* enters the wrong word, or includes incorrect punctuation, just correct it in your document by voice or by keyboard.”) (emphasis added)).

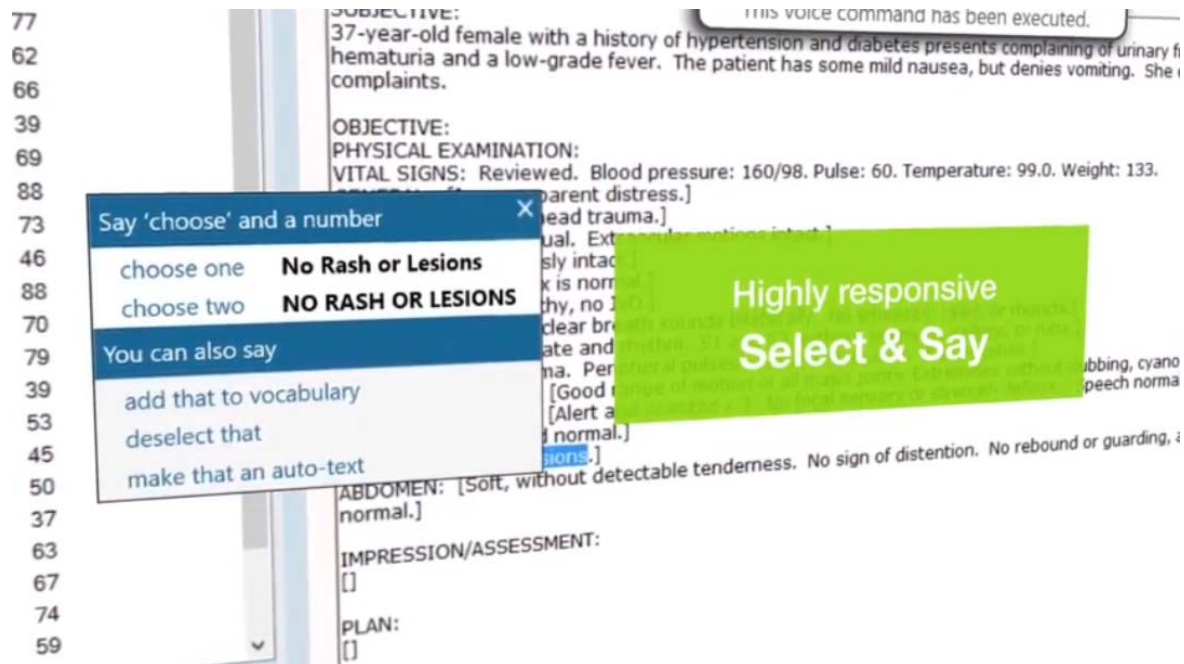
103. Nuance’s Dragon speech recognition products include natural language inspection and artificial intelligence to identify a first phrase within the document that represents a first written form of a first concept. For example, Dragon Medical Advisor analyzes an electronic health record or medical note to identify written words or phrases (e.g., “altered level of consciousness”) related to concepts (e.g. “altered mental status”) as shown below:





(<https://www.youtube.com/watch?v=K2eIMEodEhM> at 0:30-0:36 (“Dragon Medical Advisor provides real-time feedback searching for specificity opportunities...”).

104. As another example, Nuance’s Dragon speech recognition solutions show alternative words and phrases for selected text in a dictation in a “correction menu” shown below. (See [https://www.nuance.com/products/help/dragon/dragon-for-pc/enx/professionalgroup/main/Content/DialogBoxes/options/options\\_dialog\\_correct\\_tab.htm](https://www.nuance.com/products/help/dragon/dragon-for-pc/enx/professionalgroup/main/Content/DialogBoxes/options/options_dialog_correct_tab.htm) (“Show only the choices -If selected, *only alternative words and phrases* appear on the Correction menu. Additional commands do not appear. - Default value: Deselected”)(emphasis added)).



(See also <https://www.youtube.com/watch?v=GJGVJ2O2diM> at 0:48-0:57 (“Through a single voice profile and personalized commands, clinicians can use voice to make changes and pull EHR data directly into their notes.”)).

105. Nuance’s Dragon speech recognition solutions also store user profiles, settings, rules, and vocabularies in a second computer-storage medium (e.g., another area of RAM or on disk):

#### Recommended virtual memory settings

Set Virtual Memory to 4092 on Windows Server, or to the maximum possible setting on workstations that have 4 GB of RAM.

([https://www.nuance.com/content/dam/nuance/en\\_us/collateral/dragon/guide/gd-dragon-professional-group-client-installation-en-us.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/dragon/guide/gd-dragon-professional-group-client-installation-en-us.pdf) at p. 18).

## Dragon system requirements

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During the installation process, the software checks that your system meets the following requirements. If they are not met, Dragon is not installed.

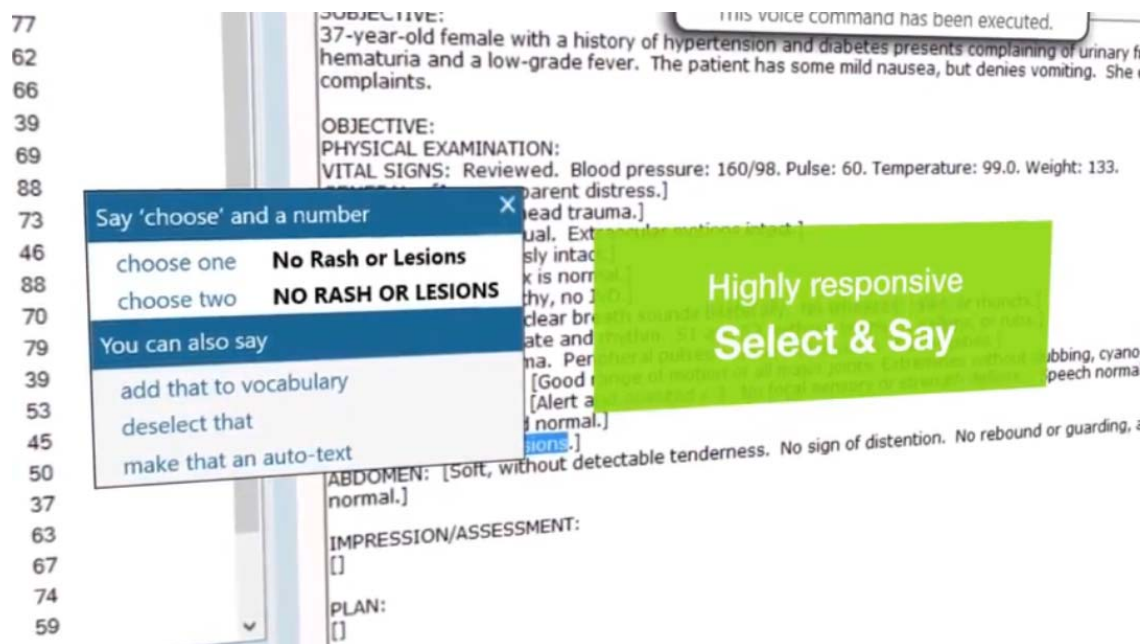
<b>RAM</b>	Minimum: <ul style="list-style-type: none"> <li>• 4 GB for all operating systems.</li> </ul>
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(*Id.* at p. 19).

106. The user profiles, settings, rules, and/or vocabularies of Nuance’s Dragon speech recognition solutions include phrases representing an alternative written form of the concept. For example, the Dragon products includes an expanded form of an abbreviation, an abbreviation for a phrase or concept, a medical diagnosis (e.g., “altered level of consciousness” / “altered mental state” or “diabetes” / “diabetes mellitus”), etc. For example, the Dragon Medical Version 10 User Guide explains the following features of Dragon Medical as it relates to abbreviations and acronyms: “Dragon knows many common abbreviations (such as NYC and BBC) and acronyms (such as NATO). To dictate an abbreviation or acronym, just say it as you normally would...If Dragon types the full word instead of the abbreviation or acronym, enters the wrong word, or includes incorrect punctuation, just correct it in your document by voice or by keyboard.” (Dragon Medical Version 10 User Guide pp. 114-115, *available at* <http://dragoncontent.nuance.com/customerPortal/DNS10UserGuide.pdf>; *see also*

*id.* at p. 116 (“Click the check boxes that indicate the usage you would like. Here are some examples of check boxes on the tab: Expand ‘ACL’ to ‘anterior cruciate ligament’; Expand ‘ADHD’ to ‘attention deficit/hyperactivity disorder’; or Click Select All to select all check boxes on the tab or click Deselect All to deselect all check boxes on the tab.”)).

107. The Dragon speech recognition products display some of the plurality of phrases to the user in windows, bubbles, or visual cues or prompts:

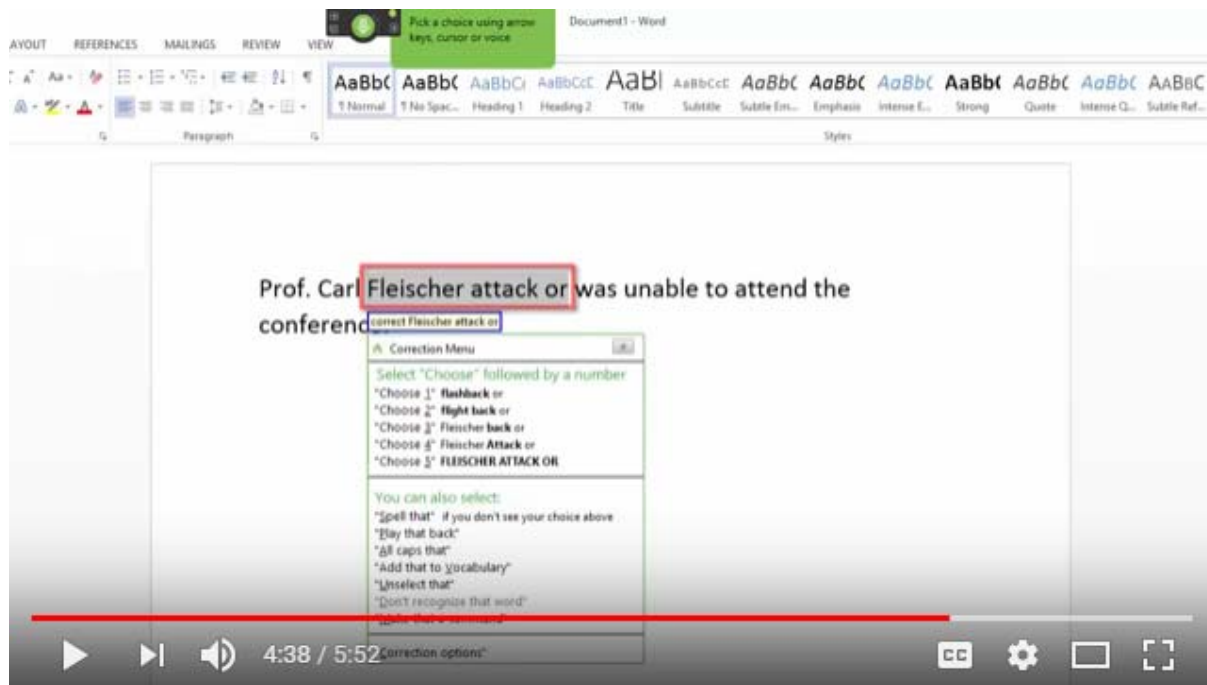


(<https://www.youtube.com/watch?v=GJGVJ2O2diM> at 0:58-1:03 (“Select ‘no rash or lesions.’”); *see also*

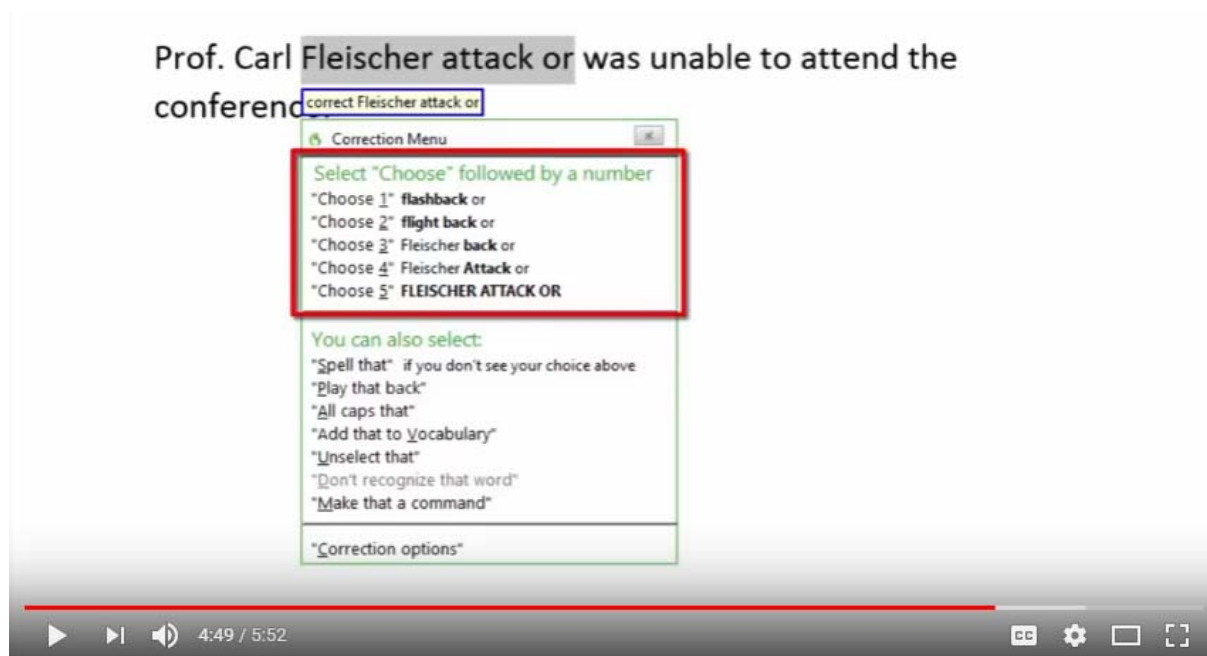
<http://dragoncontent.nuance.com/customerPortal/DNS10UserGuide.pdf>, p. 68 (“Correcting text using voice commands . . . Say ‘Select’ or ‘Correct’ and the text

that is incorrect, the Correction menu appears with a number of alternatives . . . If one alternative is correct, say ‘Choose’ and the number of that alternative . . . If none of the alternatives is correct, say ‘Spell That,’ spell the correct word or words into the Spell dialog box, and then say ‘OK’ . . . Selecting a large amount of text or an entire document and then saying ‘Spell That’ can produce unpredictable results . . . Verify that the correct text appears in the document in place of the misrecognized text and continue to the next misrecognition.”) (emphasis omitted)).

108. Nuance’s Dragon speech recognition solutions are able to receive, from a user, an instruction to replace the first phrase with one of the plurality of phrases in the document. For example, the prompt or bubble enables the user to enter instructions to replace the first phrase. The instruction issued by the user does not include one of the plurality of phrases. For example, the prompt or bubble does not require the user to state the desired replacement phrase explicitly:



(<https://www.youtube.com/watch?v=U43d0p9HnHE> at 4:38).



(*Id.* at 4:49; see also <http://dragoncontent.nuance.com/customerPortal/DNS10UserGuide.pdf>, p. 68

(“Correcting text using voice commands - Say ‘Select’ or ‘Correct’ and the text that is incorrect, the Correction menu appears with a number of alternatives. *If one alternative is correct, say ‘Choose’ and the number of that alternative. If none of the alternatives is correct, say ‘Spell That,’ spell the correct word or words into the Spell dialog box*, and then say ‘OK.’)(emphasis added and omitted)).

109. The above examples of how Nuance’s Dragon speech recognition solutions directly infringe claim 1 of the ’524 Patent are non-limiting and based on information currently available to MModal. In particular, additional aspects of Nuance’s Dragon speech recognition solutions may be identified that meet the limitations of claim 1 of the ’524 Patent, additional claims of the ’524 Patent may be determined to be infringed, and additional Nuance products may be identified as infringing once additional, non-public information is provided through the course of discovery.

110. Nuance also actively, knowingly, and intentionally induces infringement of one or more claims of the ’524 Patent under 35 U.S.C. § 271(b) by actively encouraging others to use Dragon speech recognition solutions. For example, Nuance offers its customers support for Dragon Medical One, PowerMic II, PowerMic III, PowerMic Mobile, Dragon Medical Advisor, Dragon Medical PowerPack™, Dragon Medical Connect, and CAPD Solutions, “at every stage of



the EHR lifecycle—from building, staffing, training, and going live to optimizing and sustaining success with all your health IT Investments.” (See [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf)). Nuance also provides significant support documentation such as user guides, workbooks, and videos that demonstrate how its Dragon speech recognition products can be used. (See, e.g., [https://www.nuance.com/dragon/support/dragon-naturallyspeaking.html#standardpage-mainpar\\_multicolumn\\_12547483](https://www.nuance.com/dragon/support/dragon-naturallyspeaking.html#standardpage-mainpar_multicolumn_12547483)).

Additionally, Nuance has at least one job posting for a “Trainer PS-Dragon Medical” Services, a role that requires leading “clinicians and medical staff members at various customer locations through the training process for all Dragon the deployment of our Outcome Based Learning, Coaching, Adoption and Sustainment Programs.” (See <https://jobs.nuance.com/job/salt-lake-city/trainer-ps-dragon-medical/843/7032504>). For at least Dragon Medical One, Nuance also provides EHR Services that are “aimed at helping clients successfully plan, execute, advance, and maintain EHR implementation to achieve financial, patient care, clinician satisfaction and productivity objectives.” (See <https://www.nuance.com/about-us/newsroom/press-releases/dragon-medical-one-accelerates-adoption.html>).

Additionally, for at least Dragon Medical One and Dragon Medical Advisor, Nuance



offers its customers the support of the Nuance Customer Success Organization so that customers using the Dragon Medical Advisor product can “[i]mplement with confidence.” (emphasis omitted)(See

[https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar\\_longcolumn](https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar_longcolumn)). Through the Nuance Customer Success Organization, Nuance encourages and instructs their customers to use the Dragon Medical One and Dragon Medical Advisor products in a manner that infringes the ’524 Patent:

#### Services

### Implement with confidence

Get the most out of our solutions by working with the Nuance Customer Success Organization. Our assessment tools, support, and guidance make all the difference when it comes to assessing physician utilization and CDI opportunities. From day one, your Customer Success Manager will monitor utilization, adoption, and other outcome KPIs—and proactively engage with you to drive maximum value over time. With continual feedback, you can make decisions based on actual data to create measurable clinical and business results.

[Contact us to learn more](#)

(See *id.*). Through this customer support, Nuance encourages and instructs their customers to use Nuance’s Dragon speech recognition solutions in a manner that infringes the ’524 Patent.

111. Nuance also induces infringement of the ’524 Patent by their customers by configuring Nuance’s Dragon speech recognition solutions to operate in a manner

that Nuance knows infringes that '524 Patent and by encouraging their customers to use Nuance's Dragon speech recognition solutions in a manner that Nuance knows infringes the '524 Patent. In addition, Nuance also encourages and instructs their customers to use Nuance's Dragon Medical One in a manner that Nuance knows infringes the '524 Patent through the use of reference guides (*See, e.g.*, [https://isupportcontent.nuance.com/healthcare/documents/sales/opmanual/DM360Direct/DMO\\_3.x\\_UserGuide\\_L-3864.pdf](https://isupportcontent.nuance.com/healthcare/documents/sales/opmanual/DM360Direct/DMO_3.x_UserGuide_L-3864.pdf) at p. 13 ("As you begin to dictate, Dragon Medical One will automatically open the Dictation Box and transcribe the text.")).

112. Nuance further actively, knowingly, and intentionally contributorily infringes one or more claims of the '524 Patent under 35 U.S.C. § 271(c) by knowingly making, selling, and/or offering to sell in the United States, and/or importing into the United States Nuance's Dragon speech recognition solutions. These products are a material part of practicing at least the methods of claim 1 of the '524 Patent, have no substantial non-infringing uses, are not a staple article of commerce, and are specially made and adapted for use in an infringing manner. For example, Nuance's Dragon speech recognition solutions are computer-implemented applications intended for use with a document tangibly stored in a first computer-readable medium and specifically designed and intended to access a first computer-readable medium to identify a first phrase within the document, the first phrase

representing a first written form of a concept; identify a plurality of phrases tangibly stored in a second computer-readable medium, each of the plurality of phrases representing an alternative written form of the concept; display at least some of the plurality of phrases to a user; and receive from the user an instruction to replace the first phrase with one of the plurality of phrases in the document on the first computer-readable medium, wherein the instruction does not include one of the plurality of phrases.

113. Upon information and belief, Nuance has been aware of MModal and of its proprietary technologies and intellectual property assets as evidenced by Nuance's proposals to acquire MModal and its predecessor companies. Apart from this knowledge, Nuance has had knowledge of the '524 Patent since at least the filing of this lawsuit.

#### **COUNT FOUR – INFRINGEMENT OF THE '040 PATENT**

114. On May 11, 2010, the USPTO duly and legally issued the '040 Patent, entitled "Verification of Extracted Data," to inventors Detlef Koll and Michael Finke after a full and fair examination. MModal is the owner by assignment of the entire right, title and interest in and to the '040 Patent, including the sole and undivided right to sue for all past, present and future infringement. A copy of the '040 Patent is attached hereto as Exhibit E.

115. The '040 Patent is generally directed towards a system and method for identifying and correcting words or phrases relating to coding options within a document, such as identifying allergies, diagnoses, and illnesses.

116. By way of example only, claim 1 of the '040 Patent recites:

A computer-implemented method comprising:

(A) identifying a document including a first coding having a first feature encoding a first concept, the first coding being associated with a first code and first data;

(B) rendering, by a processor, the first data to have a visual characteristic that is based on the first feature, without rendering the first code;

(C) receiving a first indication from a user of whether the rendering is accurate;

(D) identifying, based on the first indication received from the user, a verification status of the first coding, wherein the verification status of the first coding indicates whether the first data represents the first concept, comprising:

(D)(1) if the first indication that the rendering is accurate, then identifying a verification status of the first coding indicating that the first coding is accurate; and

(D)(2) otherwise, identifying a verification status of the first coding indicating that the first coding is inaccurate; and

(E) if the verification status of the first coding indicates that the first coding is inaccurate, then modifying the first feature of the first coding.

117. The claimed invention of the '040 Patent provided an unconventional solution to address problems with existing computer speech recognition technology

by, for example, automatically identifying and encoding concepts in a given data input (e.g., a document), verifying said encoded concepts by requesting indications from the user, and modifying the encoded data according to the user's feedback.

118. The first draft of a transcript, whether produced by a human transcriptionist or an automated speech recognition system, might include a variety of errors. Typically it was necessary to proofread and edit such draft documents to correct the errors contained therein. Transcription errors that needed correction may include, for example, any of the following: missing words or word sequences; excessive wording; mis-spelled, -typed, or -recognized words; missing or excessive punctuation; and incorrect document structure (such as incorrect, missing, or redundant sections, enumerations, paragraphs, or lists).

119. In some circumstances, a verbatim transcript was not desired. In fact, transcriptionists might intentionally introduce a variety of changes into the written transcription. A transcriptionist might, for example, filter out spontaneous speech effects (e.g., pause fillers, hesitations, and false starts), discard irrelevant remarks and comments, convert data into a standard format, insert headings or other explanatory materials, or change the sequence of the speech to fit the structure of a written report.

120. Furthermore, formatting requirements might make it necessary to edit even phrases that have been transcribed correctly so that such phrases comply with the formatting requirements. For example, abbreviations and acronyms might need to be fully spelled out. This was one example of a kind of “editing pattern” that may need to be applied even in the absence of a transcription error.

121. Such error correction and other editing was often performed in the prior art by human proofreaders and could be tedious, time-consuming, costly, and itself error-prone. In some cases, attempts were made to detect and correct errors using automatically-generated statistical measures of the uncertainty of the draft-generation process. For example, both natural language processors (NLPs) and automatic speech recognizers (ASRs) produced such “confidence measures.” These confidence measures, however, were often unreliable, thereby limiting the usefulness of the error detection and correction techniques that rely on them.

122. Furthermore, it might be desirable for a report or other structured document to include not only text but data. In such a case the goal was not merely to capture spoken words as text, but also to extract data from those words, and to include the data in the report. The data, although included in the report, might or might not be explicitly displayed to the user when the document was rendered. Even if not displayed to the user, the computer-readable nature of the data made it useful

for various kinds of processing which would be difficult or impossible to perform on bare text.

123. For example, a draft report generated from the free-form speech of a doctor may include both: (1) a textual transcript of the doctor's speech, and (2) codes (also referred to as “tags” or “annotations”) that annotate the transcribed speech. Such codes might, for example, take the form of XML tags.

124. The doctor's speech might be “free-form” in the sense that the structure of the speech might not match the desired structure of the written report. When dictating, doctors (and other speakers) typically only hint at or imply the structure of the final report. Such “structure” included, for example, the report's sections, paragraphs, and enumerations. Although an automated system might attempt to identify the document structured implied by the speech, and to create a report having that structure, such a process is error prone. The system might, for example, put the text corresponding to particular speech in the wrong section of the report.

125. Similarly, the system might incorrectly classify such text as describing an allergy rather than as text corresponding to some other kind of data. Such an error would be reflected in the document by an incorrect coding being applied to the text. For example, the sentence fragment “penicillin causes hives,” might be coded

incorrectly by coding the text “penicillin” as a current medication rather than as an allergen.

126. When data were extracted from speech, it was desirable that such data be coded accurately. Some systems in the prior art in the field of the '040 Patent which extracted data from speech to produce structured documents, however, did not provide a mechanism for the accuracy of the extracted data to be human-verified, thereby limiting the confidence with which the accuracy of such documents might be relied upon.

127. Some prior art systems in the field of the '040 Patent allowed the accuracy of extracted data to be verified, but only did so as a separate work step after the textual content of the document has been verified for speech recognition errors. This data verification process involved displaying the extracted codes themselves, which makes the verification process difficult due to the complexities of the coding systems, such as the Controlled Medical Vocabulary (CMV) coding system, that were commonly used to encode data in documents. Such prior art techniques for verifying extracted data were therefore of limited utility.

128. Therefore, the claimed invention of the '040 Patent addressed the need for improved techniques for verifying the correctness of data extracted from speech into documents.



129. The claimed invention of the '040 Patent has numerous benefits over systems known in the prior art. In general, enabling codings to be verified by a human enabled the document to be relied upon with a higher degree of confidence than documents which are verified using traditional automated techniques based on statistically-derived confidence measures. The claimed invention of the '040 Patent facilitated the verification process, by enabling the codings to be verified without displaying the codes themselves to the user. Instead, the codings were used to modify the manner in which the corresponding linked text was rendered. The user then verified features of the codings based on the rendering, which is designed to be easily understandable and therefore less error prone. In addition to facilitating verification of the codes, this process increased the reliability of the resulting verification statuses because verifications performed by human users were generally more reliable than those produced automatically by software based on statistically-derived confidence measures.

130. Another advantage of the claimed invention of the '040 Patent was that it enabled the codings and the text of the transcript to be verified by an integrated process, rather than in separate steps. For example, the user might verify the accuracy of the coding at the same time as the user verifies the accuracy of the corresponding linked text. The system might, for example, play back the spoken

audio stream to the user, in response to which the user may verify both the accuracy of the text (by comparing the text to the words in the spoken audio stream) and the accuracy of the codings. This resulted in a more efficient verification process, and might enable verification of the codings to be integrated with existing transcription workflows at low cost. The verification status indicated by the user for the text might be stored in the transcript, in a manner similar to that in which the verification statuses of the codings are stored in the codings.

131. A single indication (e.g., action or inaction) might be used to verify both a coding and the coding's corresponding linked text. For example, the decision by the user not to edit, or change the format of, text in the rendering of the transcript, might be interpreted by the verification subsystem as an indication both that the text was an accurate transcription of the spoken audio stream and that the corresponding coding accurately encoded the text.

132. A further advantage of the claimed invention of the '040 Patent was that it enabled the degree of trust that a coding is correct to be explicitly recorded in the coding itself, such as in the form of an XML element. Examples of such encodings of levels of trust are the derivation type field (indicating, for example, whether the code was automatically derived or manually derived), the indication type field (indicating, for example, whether the user provided the verification status

using express input or by lack of input), the verification type field (indicating, for example, whether the user verified the coding directly by editing the coding or indirectly by verifying the rendering of the coding), and the verification chain field (indicating whether the coding through a deductive chain of verifications of other codings). Thus, the claimed invention of the '040 Patent represented a substantial improvement in computer speech recognition technology as it was more efficient and reduced the burden on the user compared to prior art speech recognition systems.

133. Nuance's CAPD solutions, including Nuance's use and/or Nuance's customers' use (See, e.g., [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/data-sheet/nc\\_040699.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/data-sheet/nc_040699.pdf) ("More than 500,000 clinicians and 10,000 healthcare facilities worldwide leverage Nuance's . . . clinical documentation solutions . . . .")) [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf) ("72% of U.S. hospitals use Nuance.")) of Nuance's CAPD solutions, directly infringe one or more claims of the '040 Patent, literally or under the doctrine of equivalents, including at least claim 1.

134. To the extent that the preamble of claim 1 of the '040 Patent is a limitation, Nuance CAPD includes "a computer-implemented method." (See <https://www.nuance.com/healthcare/clintegrity/documentation->

[improvement/computer-assisted-physician-documentation.html](https://www.nuance.com/improvement/computer-assisted-physician-documentation.html) (“Drive better data and outcomes across the continuum of care with Nuance’s full portfolio of computer-assisted physician documentation (CAPD) solutions, backed by artificial intelligence (AI) for healthcare.”)).

135. Nuance’s CAPD solutions perform the step of “identifying a document including a first coding having a first feature encoding a first concept, the first coding being associated with a first code and first data.” For example, Nuance’s CAPD “analyzes all notes from a patient encounter and identifies key clinical clarifications as well as undocumented details that could impact the principle diagnosis. It helps clinicians accurately describe the quality of care that was provided reflecting actual acuity and resulting in fewer retrospective coding queries.” (*See* <https://www.youtube.com/embed/K2eIMEodEhM?autoplay=1> at 0:53-1:12). Nuance CAPD also includes embedded fact extraction technology that extracts facts embedded within an electronic health record, *see, e.g.:*

You have 2 unanswered clarifications.

1: **Metabolic Encephalopathy**

The following evidence supports a diagnosis of Metabolic Encephalopathy:

- hyponatremia
- altered consciousness
- altered mental status
- confusion
- Sodium Very Low
- fluid bolus
- aggressive fluid replacement or volume resuscitation
- Antibiotics
- Fluids

For this clarification, consider one of these responses:

- ☐ Agree
- ☐ Provider To Add Alternate Text
- ☐ Ask Again Later
- ☐ Does Not Apply

2: **Acute Hepatic Encephalopathy**

Steven Briggs [Visit Id: v0317897]

MRN: mnn0317898 Sex: Male Blood Pressure: 160/99mmHg  
 DOB: 4/9/1950 Height: 5' 9" Pulse:  
 Age: 66 Weight: 165 lbs Temperature: 99F

Note Patient Summary

**OBJECTIVE**  
 Temperature is 39° orally, pulse 121, blood pressure 85/50, respirat  
 oximetry is 88% on room air. The patient is mildly confused, alert a  
 Skin is cool and clammy. The patient has diminished breath sounds  
 bases. The patient is tachycardic without murmur. Abdomen is soft

Chest x-ray shows multilobar pneumonia.

**LABORATORY RESULTS**  
 Blood cultures are positive for Pseudomonas. CBC shows elevated w  
 count with left shift and bandemia. Comprehensive Metabolic Panel:  
 significant electrolyte disturbance, evidence of acute renal failure, si  
 acidosis, indirect evidence of significant dehydration or liver function  
 UA shows no evidence of abn  
 sodium levels 2.3

Streamlining documentation processes with Nuance CAPD solutions

**Current Medications (2)**  
 Lactulose 30 mL PO TID (378092, RxNorm)  
 Metformin 500 mg PO BID (860974, RxNorm)

**Allergies from note (1)**  
 Sulfa (59255006, SNOMED-CT)

**Diagnoses from note (4)**  
 Acute Hospital Acquired Pneumonia  
 Acute Altered Level of Consciousness due to Acute Metabolic Encephalopathy  
 History of Hepatic Cirrhosis  
 History of Type II Uncontrolled Diabetes Mellitus with Retinopathy

for real-time decision making  
 it

(See <https://www.youtube.com/embed/K2eIMEodEhM?autoplay=1> at 1:13-1:30

(“Fact extraction embedded in the EHR converts physician narratives into discrete, actionable, accurate information for real-time decision making. It *adds codifiable data to the patient chart* to support regulatory, compliance, and quality reporting

initiatives.”) (emphasis added); *see also* <https://www.nuance.com/about-us/newsroom/press-releases/nuance-meditech-imo-collaboration.html> (“Nuance Communications, Inc. (NASDAQ: NUAN) announced today a collaboration with Intelligent Medical Objects (IMO) and MEDITECH to take rich clinical narratives from physician notes, *extract key facts as structured data and automatically populate patient problem lists and allergy lists using physician-friendly terminologies to preserve clinical intent of physician documentation in the EHR.* This unique approach enables healthcare providers to translate unstructured narrative text into clinically-accurate, discrete data in the EHR to support patient problem lists for Meaningful Use as well as requirements for ICD-10 compliance, and quality reporting.”) (emphasis added)).

136. Nuance’s CAPD solutions also perform the step of “rendering, by a processor, the first data to have a visual characteristic that is based on the first feature, without rendering the first code.” For example, Nuance’s CAPD solutions highlight extracted diagnoses, medications, and allergies:



You have 2 unanswered clarifications.

1: **Metabolic Encephalopathy**

The following evidence supports a diagnosis of Metabolic Encephalopathy:

- hyponatremia
- altered consciousness
- altered mental status
- confusion
- Sodium Very Low
- fluid bolus
- aggressive fluid replacement or volume resuscitation
- Antibiotics
- Fluids

For this clarification, consider one of these responses:

- ☐ Agree
- ☐ Provider To Add Alternate Text
- ☐ Ask Again Later
- ☐ Does Not Apply

2: **Acute Hepatic Encephalopathy**

Steven Briggs [Visit Id: v0317897]

MRN: mrm0317898 Sex: Male Blood Pressure: 160/98mmHg  
 DOB: 4/9/1950 Height: 5' 9" Pulse:  
 Age: 66 Weight: 165 lbs Temperature: 99F

Note Patient Summary

**OBJECTIVE**

Temperature is 39° orally, pulse 121, blood pressure 85/50, respiratory oximetry is 88% on room air. The patient is mildly confused, alert and oriented. Skin is cool and clammy. The patient has diminished breath sounds at the bases. The patient is tachycardic without murmur. Abdomen is soft.

Chest x-ray shows multilobar pneumonia.

**LABORATORY RESULTS**

Blood cultures are positive for Pseudomonas. CBC shows elevated white blood cell count with left shift and bandemia. Comprehensive Metabolic Panel shows evidence of acute renal failure, significant electrolyte disturbance, evidence of acute dehydration or liver function test abnormalities. UA shows no evidence of hematuria or proteinuria. Indirect evidence of significant dehydration or evidence of acidosis, indirect evidence of hepatic dysfunction. UA shows no evidence of hematuria or proteinuria.

(See <https://www.youtube.com/embed/K2eIMEodEhM?autoplay=1> at 1:02).

You have 1 unanswered clarifications.

1: **Metabolic Encephalopathy**

2: **Acute Hepatic Encephalopathy**

The following evidence supports a diagnosis of Acute Hepatic Encephalopathy:

- cirrhosis
- altered consciousness
- altered mental status
- confusion
- Lactulose

For this clarification, consider one of these responses:

- ☐ Agree
- ☐ Provider To Add Alternate Text
- ☐ Ask Again Later
- ☐ Does Not Apply

Steven Briggs [Visit Id: v0317897]

MRN: mrm0317898 Sex: Male Blood Pressure: 160/98mmHg  
 DOB: 4/9/1950 Height: 5' 9" Pulse:  
 Age: 66 Weight: 165 lbs Temperature: 99F

Note Patient Summary

**OBJECTIVE**

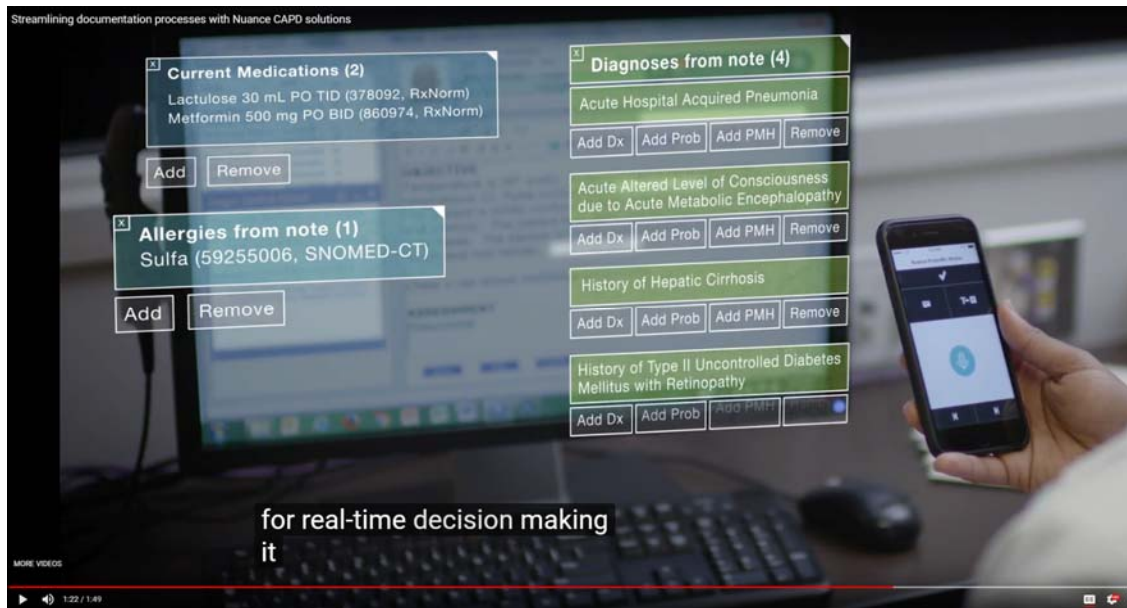
Temperature is 39° orally, pulse 121, blood pressure 85/50, respiratory oximetry is 88% on room air. The patient is mildly confused, alert and oriented. Skin is cool and clammy. The patient has diminished breath sounds at the bases. The patient is tachycardic without murmur. Abdomen is soft.

Chest x-ray shows multilobar pneumonia.

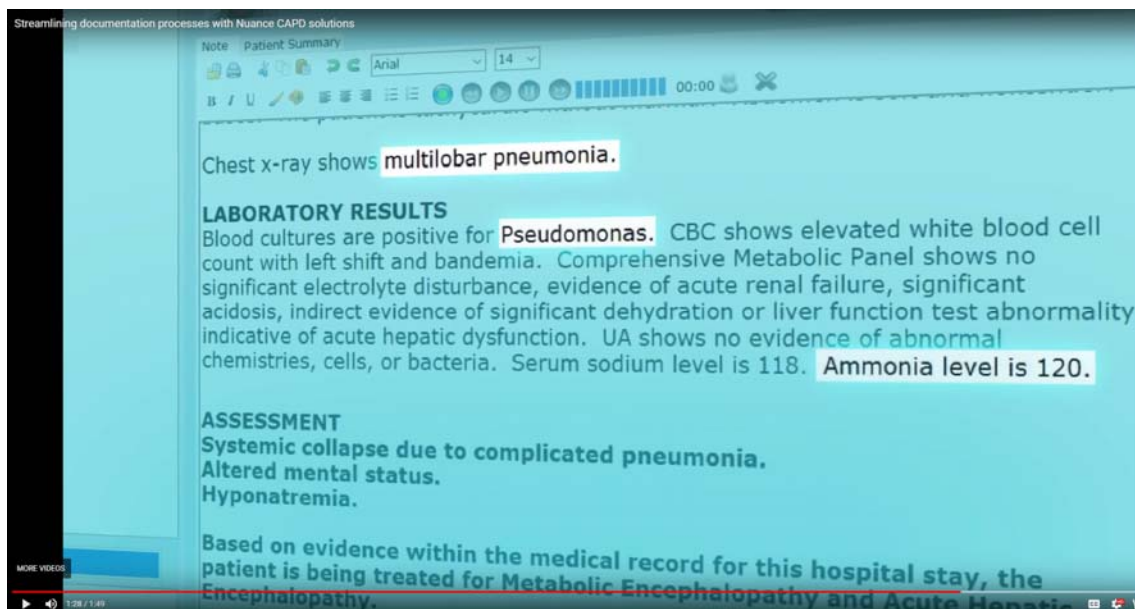
**LABORATORY RESULTS**

Blood cultures are positive for Pseudomonas. CBC shows elevated white blood cell count with left shift and bandemia. Comprehensive Metabolic Panel shows evidence of acute renal failure, significant electrolyte disturbance, evidence of acute dehydration or liver function test abnormalities. UA shows no evidence of hematuria or proteinuria. Indirect evidence of significant dehydration or evidence of acidosis, indirect evidence of hepatic dysfunction. UA shows no evidence of hematuria or proteinuria.

(See <https://www.youtube.com/embed/K2eIMEodEhM?autoplay=1> at 1:07).



(See <https://www.youtube.com/embed/K2eIMEodEhM?autoplay=1> at 1:22).



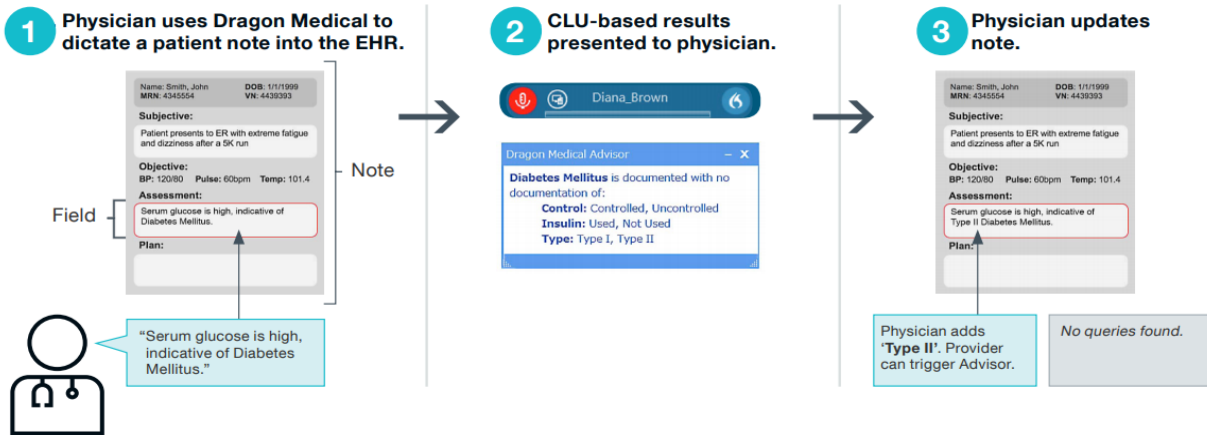
(See also <https://www.youtube.com/embed/K2eIMEodEhM?autoplay=1> at 1:28).

137. Nuance’s CAPD solutions further performs the step of “receiving a first indication from a user of whether the rendering is accurate.” For example, Nuance



CAPD is configured to prompt and receive a selection from a user confirming whether a rendered diagnosis is correct as shown in the below examples:

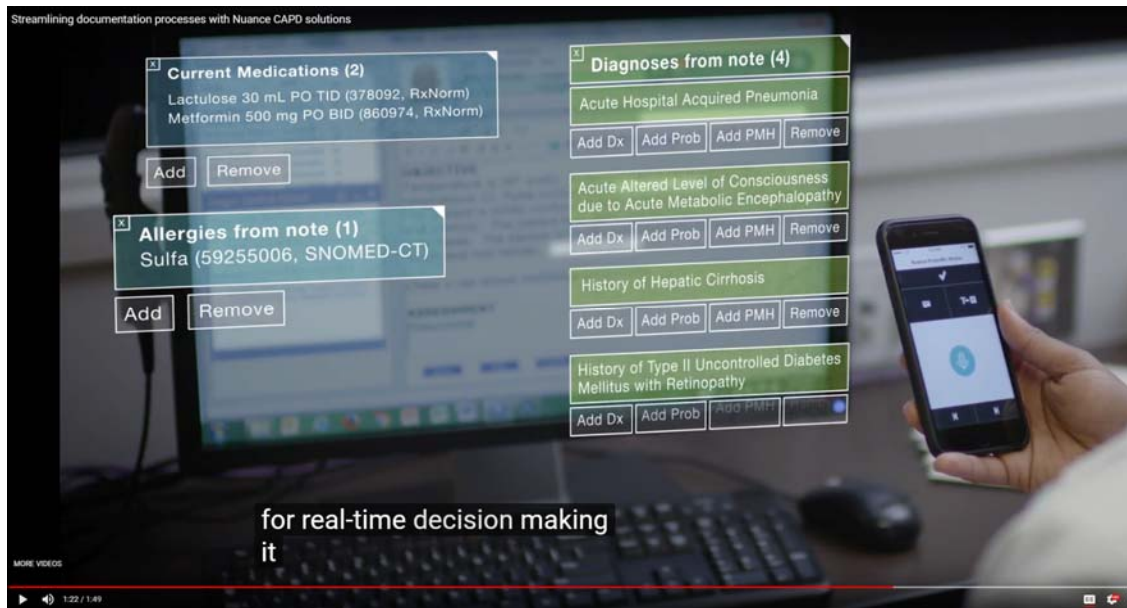
### How it works



(<http://www.startstop.com/content/pdf/Dragon%20Medical%20Advisor%20DS-Rev.%208.2015.pdf>).

The screenshot shows a medical decision support system interface. On the left, a panel titled "You have 2 unanswered clarifications." lists two items: 1: Metabolic Encephalopathy and 2: Acute Hepatic Encephalopathy. For the first item, it lists evidence supporting the diagnosis: hyponatremia, altered consciousness, altered mental status, confusion, Sodium Very Low, fluid bolus, aggressive fluid replacement or volume resuscitation, Antibiotics, and Fluids. Below this, it asks for a response: 1: Agree, 2: Provider To Add Alternate Text, 3: Ask Again Later, and 4: Does Not Apply. The second item, Acute Hepatic Encephalopathy, is also listed. On the right, a patient summary for Steven Briggs (Visit Id: v0317897) is shown. The summary includes patient information (MRN: mrm0317898, Sex: Male, Blood Pressure: 160/98mmHg, DOB: 4/9/1950, Height: 5' 9", Pulse: 14, Age: 66, Weight: 165 lbs, Temperature: 99F) and a note. The note includes an objective section: "Temperature is 39° orally, pulse 121, blood pressure 85/50, respiratory oximetry is 88% on room air. The patient is mildly confused, alert. Skin is cool and clammy. The patient has diminished breath sounds. Chest x-ray shows multilobar pneumonia." and a laboratory results section: "Blood cultures are positive for Pseudomonas. CBC shows elevated count with left shift and bandemia. Comprehensive Metabolic Panel shows significant electrolyte disturbance, evidence of acute renal failure, significant evidence of significant dehydration or liver function test level is 4.8." The interface also shows a video player at the bottom with a progress bar at 1:07 / 1:49.

(<https://www.youtube.com/watch?v=K2eIMEodEhM> at 1:07).

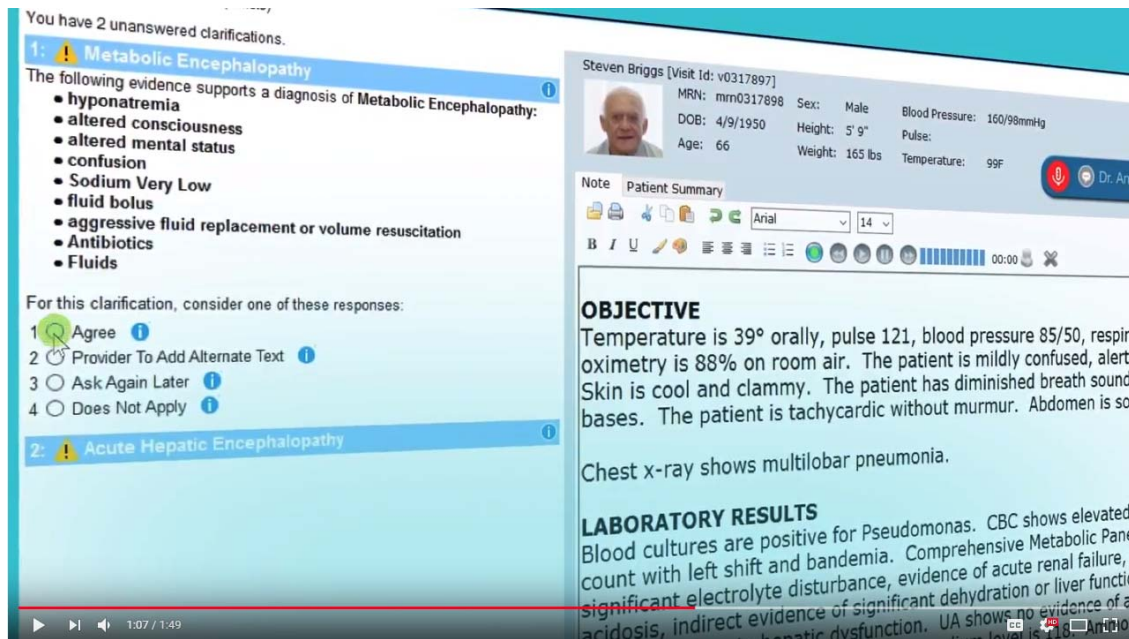


(<https://www.youtube.com/watch?v=K2elMEodEhM> at 1:22).

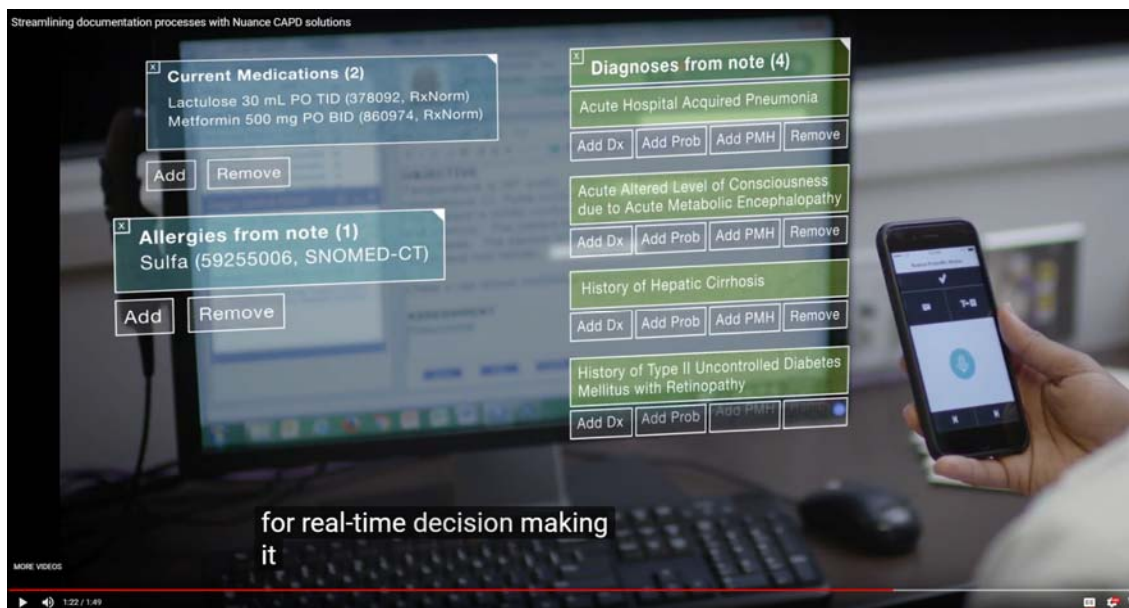
138. Nuance’s CAPD solutions also perform the step of “identifying, based on the first indication received from the user, a verification status of the first coding, wherein the verification status of the first coding indicates whether the first data represents the first concept, comprising: (D)(1) if the first indication that the rendering is accurate, then identifying a verification status of the first coding indicating that the first coding is accurate; and (D)(2) otherwise, identifying a verification status of the first coding indicating that the first coding is inaccurate.”

139. As example and without way of limitation, Nuance’s CAPD enables a user to click “agree” or “disagree,” (or “add” or “remove”) which corresponds to a verification status of the first coding. A user can then indicate acceptance of a condition or suspected condition, which is recorded by the system. If the user

indicates “agree” or “add,” the verification status indicates that the coding is accurate. Otherwise, the verification status indicates that the coding is inaccurate:

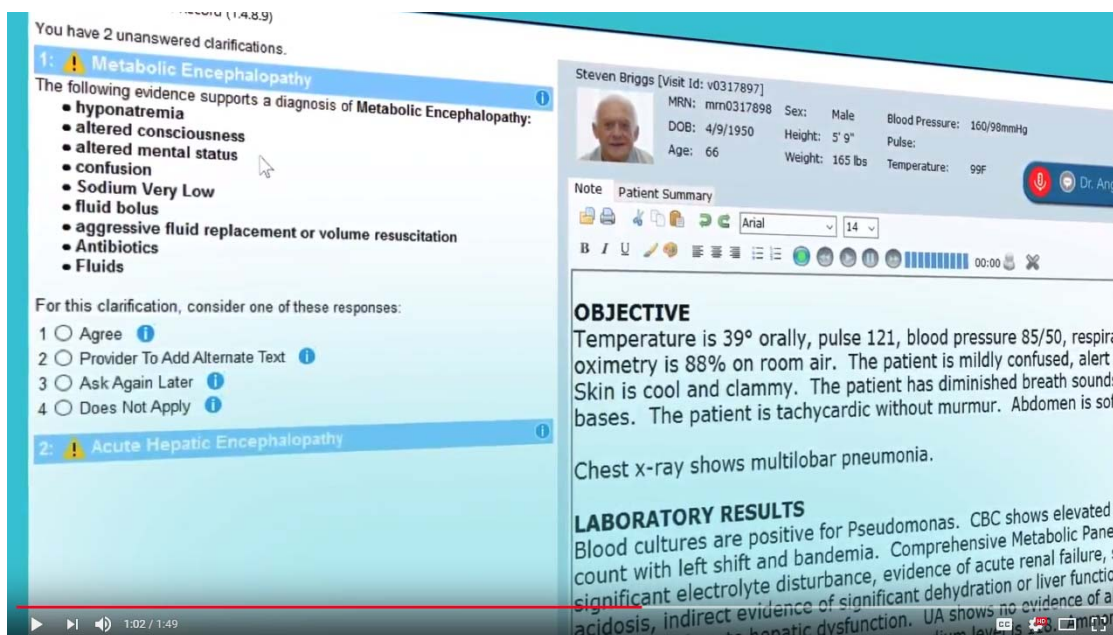


(<https://www.youtube.com/watch?v=K2eIMEodEhM> at 1:07).



(See <https://www.youtube.com/embed/K2eIMEodEhM?autoplay=1> at 1:22).

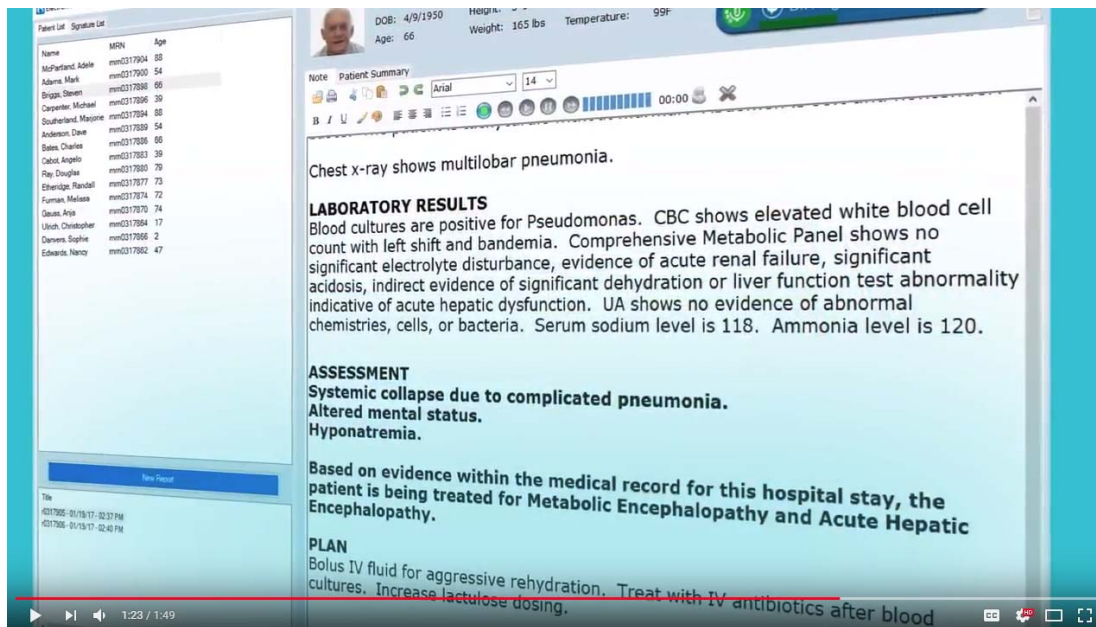
140. Finally, Nuance's CAPD solutions perform the step of "if the verification status of the first coding indicates that the first coding is inaccurate, then modifying the first feature of the first coding." As an example, Nuance's CAPD products are configured to remove or modify the identified feature (such as allergen, medication, diagnosis, etc.) if the verification status of the coding indicates the coding to be inaccurate (showing that the user can choose "does not apply" or "remove" for the identified feature):



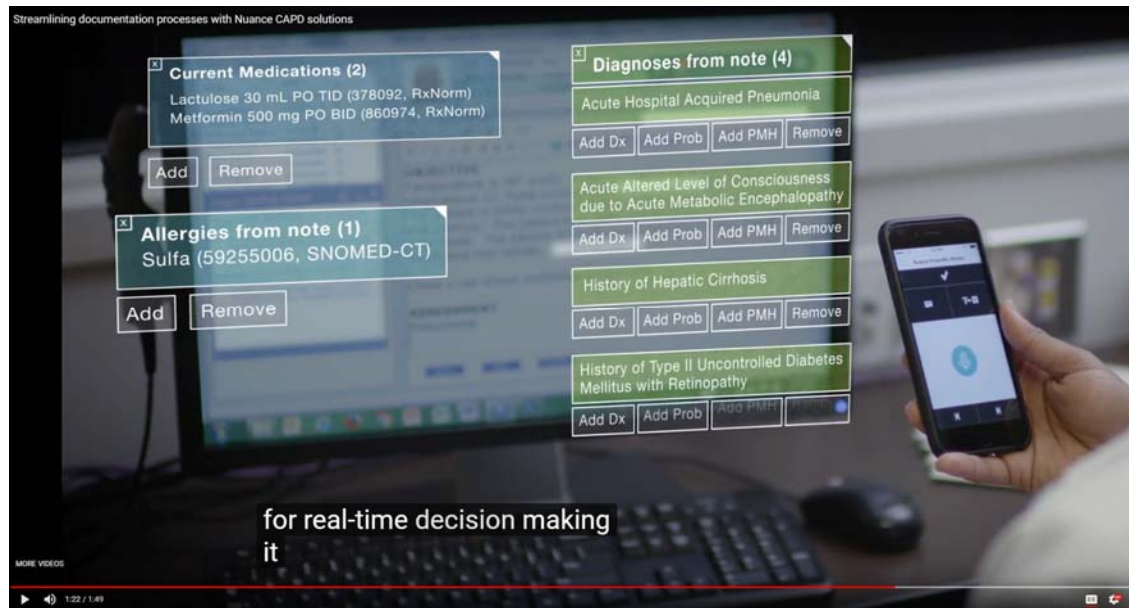
(See <https://www.youtube.com/watch?v=K2eIMEodEhM> at 0:51-1:13 ("CAPD embedded in the EHR analyzes all notes from a patient encounter and identifies key clinical clarifications as well as undocumented details that could impact the principle diagnosis. It helps clinicians accurately describe the quality of care that was



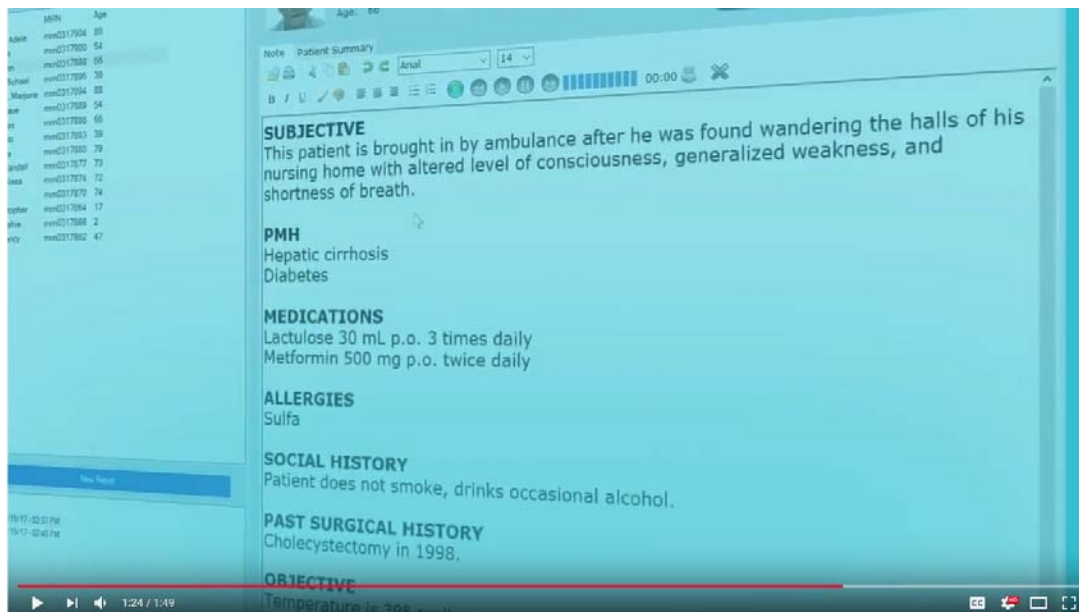
provided, reflecting actual acuity and resulting in fewer retrospective coding queries.”)).



(<https://www.youtube.com/watch?v=K2eIMEodEhM> at 1:23 (showing “the patient is being treated for Metabolic Encephalopathy and Acute Hepatic Encephalopathy.”) (emphasis omitted)). Conversely, if the user disagrees with the diagnosis by selecting “Does Not Apply,” these diagnosed conditions would not be included in the patient chart.



(See <https://www.youtube.com/watch?v=K2eIMEodEhM> at 1:13-1:29 (“Fact extraction embedded in the EHR converts physician narratives into *discrete, actionable, accurate information for real-time decision making*. It adds codifiable data to the patient chart to support regulatory, compliance, and quality reporting initiatives.”) (emphasis added).



(See <https://www.youtube.com/watch?v=K2eIMEodEhM> at 1:24 (showing that Lactulose and Metformin are the identified medications and that Sulfa is the identified allergen.)). Conversely, if the user disagrees with the diagnosis by selecting “Remove,” these identified medications and allergens would not be included in the patient chart.

141. The above examples of how Nuance’s CAPD solutions directly infringe claim 1 of the ’040 Patent are non-limiting and based on information currently available to MModal. In particular, additional aspects of Nuance’s CAPD solutions may be identified that meet the limitations of claim 1 of the ’040 Patent, additional claims of the ’040 Patent may be determined to be infringed, and additional Nuance

products may be identified as infringing once additional, non-public information is provided through the course of discovery.

142. Nuance also actively, knowingly, and intentionally induces infringement of one or more claims of the '040 Patent under 35 U.S.C. § 271(b) by actively encouraging others to use Nuance's CAPD solutions. Nuance offers its customers support "from day one" for Nuance's CAPD solutions including at "every stage of the EHR lifecycle—from building, staffing, training, and going live to optimizing and sustaining success with all your health IT Investments." (*See* [https://www.nuance.com/content/dam/nuance/en\\_us/collateral/healthcare/brochure/nc\\_028927.pdf](https://www.nuance.com/content/dam/nuance/en_us/collateral/healthcare/brochure/nc_028927.pdf)). Nuance also provides significant support documentation, including data sheets, white papers, and videos that demonstrate how its CAPD products can be used. (*See, e.g.,* <https://www.nuance.com/healthcare/clintegrity/documentation-improvement/computer-assisted-physician-documentation.html#gated-form> at "Resources"). Through this customer support, Nuance encourages and instructs their customers to use Nuance's CAPD solutions in a manner that infringes the '040 Patent.

143. Nuance also induces infringement of the '040 Patent by their customers by configuring Nuance CAPD to operate in a manner that Nuance knows infringes



that '040 Patent and by encouraging their customers to use Nuance CAPD product in a manner that Nuance knows infringes the '040 Patent. Nuance also offers its CAPD customers the support of the Nuance Customer Success Organization so that customers using CAPD solutions like Dragon Medical Advisor can “[i]mplement with confidence.” (emphasis omitted)(See [https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar\\_longcolumn](https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar_longcolumn)). Through the Nuance Customer Success Organization, Nuance encourages and instructs their customers to use its CAPD solutions in a manner that infringes the '040 Patent:

#### Services

### Implement with confidence

Get the most out of our solutions by working with the Nuance Customer Success Organization. Our assessment tools, support, and guidance make all the difference when it comes to assessing physician utilization and CDI opportunities. From day one, your Customer Success Manager will monitor utilization, adoption, and other outcome KPIs—and proactively engage with you to drive maximum value over time. With continual feedback, you can make decisions based on actual data to create measurable clinical and business results.

[Contact us to learn more](#)

(See [https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar\\_longcolumn](https://www.nuance.com/healthcare/physician-and-clinical-speech/dragon-medical-advisor.html#standardpage-mainpar_longcolumn)). In addition, Nuance also encourages and instructs their customers to use Nuance’s CAPD solutions in a manner that Nuance knows infringes the '040 Patent through the use of special

reports (See CAPD 2017 Special Report, p. 5, *available at*: <https://www.nuance.com/healthcare/clintegrity/documentation-improvement/computer-assisted-physician-documentation.html> (“For example, by identifying the signs and symptoms of sepsis even if it is not specifically stated in the note, Nuance CAPD can initiate a virtual clinical conversation with the physician to add critical detail to the note . . . .”))

144. Nuance further actively, knowingly, and intentionally contributorily infringes one or more claims of the '040 Patent under 35 U.S.C. § 271(c) by knowingly making, selling, and/or offering to sell in the United States, and/or importing into the United States Nuance's CAPD solutions. These products are a material part of practicing at least the methods of claim 1 of the '040 Patent, have no substantial non-infringing uses, are not a staple article of commerce, and are specially made and adapted for use in an infringing manner. For example, Nuance's CAPD solutions are computer-implemented applications specifically designed and intended to identify a document including a first coding having a first feature encoding a first concept, the first coding being associated with a first code and a first data; rendering, by a processor, the first data to have a visual characteristic that is based on the first feature, without rendering the first code; receiving a first indication from a user of whether the rendering is accurate; identifying, based on the first

indication received from the user, a verification status of the first coding, wherein the verification status of the first coding indicates whether the first data represents the first concept, comprising: if the first indication that the rendering is accurate, then identifying a verification status of the first coding indicating that the first coding is accurate; and otherwise, identifying a verification status of the first coding indicating that the first coding is inaccurate; and if the verification status of the first coding indicates that the first coding is inaccurate, then modifying the first feature of the first coding.

145. Upon information and belief, Nuance has been aware of MModal and of its proprietary technologies and intellectual property assets as evidenced by Nuance's proposals to acquire MModal and its predecessor companies. Apart from this knowledge, Nuance has had knowledge of the '040 Patent since at least the filing of this lawsuit.

### **PRAYERS FOR RELIEF**

WHEREFORE, MModal prays for the following relief from the Court:

- a. Judgment that Nuance has infringed one or more claims of the '786 Patent;
- b. Judgment that Nuance has infringed one or more claims of the '829 Patent;

- c. Judgment that Nuance has infringed one or more claims of the '524 Patent;
- d. Judgment that Nuance has infringed one or more claims of the '040 Patent;
- e. Entry of an injunction against Nuance and those in privity with them and those acting in concert with them from further infringement of the '786, '829, '524, '040 Patents;
- f. An award to MModal of damages adequate to compensate it for all infringement occurring through the date of the judgment, with prejudgment interest, and for any supplemental damages as appropriate and post-judgment interest after that date;
- g. A finding that this action for infringement is an exceptional case under 35 U.S.C. § 285 and an award of reasonable counsel fees and costs; and
- h. Such other relief as this Court or a jury may deem proper and just under the circumstances.

**JURY DEMAND**

MModal demands a trial by jury on all issues so triable.

[ signatures continue on next page ]

Dated: February 28, 2018

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Respectfully submitted,

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